TAPR PIC Development and Technical Issues Special Interest Group Archive, January 2000 through December 2000

January 2000 through December 2000

TAPR's technical forum for Microchip PIC development and PIC-based TAPR projects, including the PIC-E and PIC Encoder kits, firmware, GPS interfaces, telemetry, packet-radio devices, construction, debugging, and hardware modifications.

This volume contains 12 original monthly files and 576 messages, arranged chronologically. The PDF is a readable access copy: MIME transfer encodings are decoded, HTML bodies are converted to plain text, and non-text attachments are represented by descriptive notes. The raw source text is supplied separately with the Internet Archive item.

This discussion archive complements the separately curated TAPR PIC-E and GPS-E kit software item.

Month	Messages	Original source file
2000-01	34	picsig.0001
2000-02	75	picsig.0002
2000-03	85	picsig.0003
2000-04	84	picsig.0004
2000-05	78	picsig.0005
2000-06	45	picsig.0006
2000-07	19	picsig.0007
2000-08	42	picsig.0008
2000-09	48	picsig.0009
2000-10	30	picsig.0010
2000-11	27	picsig.0011
2000-12	9	picsig.0012

January 2000

Original source file: picsig.0001
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0001

1. [picsig] Re: Pic needed for Kenwood TMV700

From: Derek Lassen <kn6td@clubnet.net>
Date: Tue, 04 Jan 2000 19:13:18 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-58319-2000.01.04-21.35.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This looks like a real good addon!
A foldable keyboard:
   www.thinkoutside.com/

At 11:59 PM 12/30/99 -0500, you wrote:
>The most popular accessory for the new Knewoood mobile APRS radio will be
>a KEYBOARD. This is easy to do with a PIC processor and a DTMF encoder.
>Just program the PIC to convert the ASCII keyboard characters into the
>needed DTMF tones to emulate what the Microphone TTpad does during
>alphabetic text entry!
>
>In other words, the letter "A" will be the DTMF "2", and letter "B" will
>be two of them, and "C" will be "2 2 2" etc...
>
>It wont be perfect, but it will be an easy external device to build.
>I hope someone on this SIG will take this up. THe PIC should take a
>normal PS2 keyboard and output DTMF tones. Since the Pic-E already has 8
>pin RJ jacks, then it can simply be inserted inbetween the Mic and the
>radio to do its thing...
>
>Bob
>
>
>
>---
>You are currently subscribed to picsig as: kn6td@clubnet.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: Pic needed for Kenwood TMV700

From: "Ronald C. Barnes" <ka1kjz@home.com>
Date: Wed, 05 Jan 2000 16:16:34 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: bruninga@nadn.navy.mil
Message-ID: <LYR6890-58436-2000.01.05-15.28.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Very neat idea... could also be used for programming of other radios,
similar applications, and so forth. I am reminded of the old Icom land
mobile radios that needed a special keypad to program.

The little keyboard by ThinkOutside is really wild, I'm reminded of that
IBM laptop a few years ago with the keyboard that broke in half and folded
up. I've already done the inquiries with the company.

I would be willing to take on this project, as I've been looking for a PIC
project to chase away the winter blues. I'm experienced with the '84 and
the newer '87x flash series, as well as the old '5x and 12C's chips.

I'll need the Kenwood specs though, as I dont have one myself. The source
and plans will be freeware.

Ron KA1KJZ

At 07:13 PM 1/4/00 -0800, you wrote:
>This looks like a real good addon!
>A foldable keyboard:
>   www.thinkoutside.com/
>

>At 11:59 PM 12/30/99 -0500, you wrote:
>>The most popular accessory for the new Knewoood mobile APRS radio will be
>>a KEYBOARD. This is easy to do with a PIC processor and a DTMF encoder.
>>Just program the PIC to convert the ASCII keyboard characters into the
>>needed DTMF tones to emulate what the Microphone TTpad does during
>>alphabetic text entry!
>>
>>In other words, the letter "A" will be the DTMF "2", and letter "B" will
>>be two of them, and "C" will be "2 2 2" etc...
>>
>>It wont be perfect, but it will be an easy external device to build.
>>I hope someone on this SIG will take this up. THe PIC should take a
>>normal PS2 keyboard and output DTMF tones. Since the Pic-E already has 8
>>pin RJ jacks, then it can simply be inserted inbetween the Mic and the
>>radio to do its thing...
>>
>>Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Another bug swatted...

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Thu, 6 Jan 2000 18:50:58 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-58747-2000.01.06-19.06.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks to the keen eyes of a fellow ham, I've discovered an error
in a timing loop that affects these programs I've wrote.
picpalm.asm,   rampicer.asm,   rx_rly11.asm

Mike, K5ATM, noticed the loop that times various initialization
subroutines was way off and told me about it. Turns out I'd originally
wrote the routine for a 4 Mhz xtal and forgot to edit for the PIC-E's
10 Mhz clock. Duh!
They've since been repaired and uploaded to the TAPR website.
The new files are named;
Rx_rly12.zip
                        stock PIC-E program, either receives 1st 53 bytes
                        of a packet and displays to a PalmPilot or relays
                        valid, compressed position reports ala digipeater.
Pic_palm11.zip
                        stock PIC-E program, rx similar to Rx_rly12 except
                        the data is formated tnc style to work with
PalmAPRS.
                        No transmit capability.
Rampicer11.zip
                        For PIC-E with FRAM mod. Decodes entire packets
                        upto 255 bytes and sends serial data in tnc format
to
                        PalmPilot. If the PDA is running Palm APRS, they
                        function as a very portable APRS network monitor.
                        No transmit capability.

Soon...
PIC_DIGI.ASM
                        For PIC-E with FRAM mod. Digipeats packets with
                        unused RELAY or WIDE (choice of one) in it's path.
                        Replaces that RELAY or WIDE with a callsign that
                        user selects at programming time. User may also
                        modify the PIC-E's "myalias" (RELAY / WIDE) in order
                        to respond to a different alias.
                        Still very beta.

Sorry for any problems this may have caused.
73 Mike Berg N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] PIC-E tracker

From: Doug McFadden <kc7imr@orednet.org>
Date: Thu, 6 Jan 2000 17:31:54 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-58755-2000.01.06-20.06.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Question: Is there enough code space in the PIC-E chip for code to
simulate a KPC 3+ tnc mode --- increase the xmit time to 30 minutes and
send GPGGA strings while NOT moving or 1 minute and GPRMC while moving?
Maybe a relay powered off the ignition, contacts accross the mode switch
of the PIC-E to set moving/stationary? Or maybe just GPGGA and the rate
change?

Is there a cheap or better yet free "C" compiler that will work for the
PIC-E?

73 de Doug

KC7IMR
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Re: PIC-E tracker

From: Brian Short <bshort@speedchoice.com>
Date: Fri, 07 Jan 2000 02:09:16 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-58761-2000.01.06-20.25.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>Is there a cheap or better yet free "C" compiler that will work for the
>PIC-E?

I am using the CCS C compiler for programming the 16F84. It costs $99.

Unfortunately, I know of no free compilers. If you find free tools of this
sort
that are useful, please let me know.

Thanks, Brian

--
Brian K. Short http://www.qsl.net/k7on/ mailto:k7on@arrl.net
--

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: PIC-E tracker

From: "Byon Garrabrant" <byon@mail.com>
Date: Thu, 6 Jan 2000 18:19:04 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-58763-2000.01.06-20.36.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 6 Jan 00, at 17:31, Doug McFadden wrote:

> Question: Is there enough code space in the PIC-E chip for code to
> simulate a KPC 3+ tnc mode --- increase the xmit time to 30 minutes and
> send GPGGA strings while NOT moving or 1 minute and GPRMC while moving?
> Maybe a relay powered off the ignition, contacts accross the mode switch
> of the PIC-E to set moving/stationary? Or maybe just GPGGA and the rate
> change?

Both the C and ASM versions of PIC-E are pretty hard coded for
the RMC format. The ASM version is about 70% full code space
wise. I could probably add support to read either sentence if there
was enough interest. What's the benefit of the other string?

Multiple transmit rates has been discussed before, but no
consesus was reached as to the best algorithm. I think John's PIC-
E C code has something already to drop the repeat rate. My soon-
to-be TinyTrak also has two switchable beacon rates.

But PIC-E code version support two switched preferences, so you
could have the two rates switched by ignition.

Byon

_____
Byon Garrabrant N6BG byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Re: PIC-E tracker

From: John Hansen <hansen@fredonia.edu>
Date: Thu, 06 Jan 2000 21:32:04 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-58766-2000.01.06-20.52.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 05:31 PM 1/6/00 -0800, you wrote:
>Question: Is there enough code space in the PIC-E chip for code to
>simulate a KPC 3+ tnc mode --- increase the xmit time to 30 minutes and
>send GPGGA strings while NOT moving or 1 minute and GPRMC while moving?
>Maybe a relay powered off the ignition, contacts accross the mode switch
>of the PIC-E to set moving/stationary? Or maybe just GPGGA and the rate
>change?

I think the answer to your question is yes. I did a version of GPS-E-2
that was designed to work with the TRimble SVee6 GPS unit. It relies on
the GGA and VTG sentences. It is posted on the TAPR website. But perhaps
you mean it should actually send the GGA sentence. If so, this would
require recoding, but would probably take less space in the PIC than the
current firmware because a lot of space is used to do the MIC-E style
compression.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] TMD700 Message Keyboard!

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Sun, 9 Jan 2000 13:18:52 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@tapr.org>
Message-ID: <LYR6890-59345-2000.01.09-12.35.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Pic programmers!

   The ability to make a Keyboard for text message entry on the mobile
TMD700 radio just got REAL easy. Apparently Kenwood did include a commadn
via the serial port for direct entry of APRS messages. Therefore all a
PIC has to do is convert from AT or PS2 keyboard codes direct to ASCII!

Then mobile TMD700 APRS users (all messages are displayed on the front of
the radio) can easily TYPE responses using only a keyboard/Pic instead of
having to have a LAPTOP or use the TTone pad...

Ill buy one!
de WB4APR, Bob

Walter Dunckle wrote:

Since the 700 seems to be so similar to the D7, this leads me to believe that
the following functions will work...
On the TH-D7 messages can be input using the AMSG 00,CALLSIGN,Message text here
And read by input AMSG 01 (for read of message #1 AMSG 02 for read of message #2
etc)

FYI, AI 1 turns on output function (on the D7 and probably the 700) so you can
see what command different buttons send to the radio. This is very handy for
reverse engineering the commands for the radio's serial port. You can see the
serial command while you operate the radio from the radios keypad.

see http://www.radiohound.com/d7zpinfo.htm for more info
Walter

Jim Gill wrote:

>
>
> On a related note, regarding the quoting below on wanting an alternative
> outboard method of message entry for the D700 when in APRS mode; while the
> D700 allows control and monitoring of most every option through the serial
> port, it does *not* echo message entry functions out the port when you use
> either the control head or keyboard to enter a message. I'm still
> researching it to find a way. It appears with everything else you can send
> to the radio to control it over the serial port, there has to be a way for
> msgs also.
>
> Thanks, Jim N0RMO   Omaha NE

You are currently subscribed to htaprs as: BRUNINGA@NADN.NAVY.MIL
To unsubscribe send a blank email to leave-htaprs-3559T@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Re: TMD700 Message Keyboard!

From: Steve Dimse <sdimse@netrox.net>
Date: Sun, 9 Jan 2000 13:59:58 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59383-2000.01.09-13.16.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 1/9/00 1:18 PM Bob Bruninga (bruninga@nadn.navy.mil) wrote:

>Pic programmers!
>
>   The ability to make a Keyboard for text message entry on the mobile
>TMD700 radio just got REAL easy. Apparently Kenwood did include a commadn
>via the serial port for direct entry of APRS messages. Therefore all a
>PIC has to do is convert from AT or PS2 keyboard codes direct to ASCII!
>
>Then mobile TMD700 APRS users (all messages are displayed on the front of
>the radio) can easily TYPE responses using only a keyboard/Pic instead of
>having to have a LAPTOP or use the TTone pad...
>
>Ill buy one!

I had looked in the past for someone who had done pic code for PS-2 input
for another project and have a few links to share if someone cares to
tackle the project. It looks like it would only be a weekend project.

I'm not sure how much I would use this, but it would be cool.

Bob, do you have the specifics on how to do the interface? I do not think
that simply sending chars on the serial port results in sending messages,
there must be some sort of protocol.

I finally got around to placing my order for a couple D700's, one for my
boat and the other for my new truck (gets here today or tomorrow!). I
doubt I'll ever get around to it, I'd love to see someone else try at
this...

Here are some good places to start:

http://www.repairfaq.org/filipg/LINK/PORTS/F_Keyboard_FAQ.html
http://www.geocities.com/SiliconValley/Bay/8302/keybrd.htm
http://www.hth.com/filelibrary/TXTFILES/keyboard.txt
http://ourworld.compuserve.com/homepages/steve_lawther/keybinfo.htm

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Re: TMD700 Message Keyboard!

From: John Hansen <john@hansen.net>
Date: Sun, 09 Jan 2000 15:44:55 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59401-2000.01.09-15.02.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 01:59 PM 1/9/00 -0500, Steve Dimse wrote:

>I had looked in the past for someone who had done pic code for PS-2 input
>for another project and have a few links to share if someone cares to
>tackle the project. It looks like it would only be a weekend project.

One note from the docs Steve supplied: Somewhere in there it says that a typical keyboard draws up to 300 ma. Don't try to run that through a 78L05! Also, I'd be very wary of trying to draw that much current off the +8 volts on the mic jack. (I don't own one of these radios so I've not looked at the specs, but 300 ma from the mic jack seems unlikely to me).

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] Re: TMD700 Message Keyboard!

From: "Ronald C. Barnes" <ka1kjz@home.com>
Date: Sun, 09 Jan 2000 17:09:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59414-2000.01.09-16.20.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff Bachiochi of Circuit Cellar Magazine already interfaced a PC keyboard to a PIC, '84 as I recall, in his "From the bench" column. I havent had the chance to look up the article, but it was entitled "Got those 16800 baud blues" or similar (as thats the actual "baudrate" of a keyboard, if you did the math)

It was in '98 or '97 as I recall. I moved recently, so this is a perfect excuse to get my CC INK library back in shape.

Ron :)

At 01:59 PM 1/9/00 -0500, you wrote:
>On 1/9/00 1:18 PM Bob Bruninga (bruninga@nadn.navy.mil) wrote:
>
>>Pic programmers!
>>
>>   The ability to make a Keyboard for text message entry on the mobile
>>TMD700 radio just got REAL easy. Apparently Kenwood did include a commadn
>>via the serial port for direct entry of APRS messages. Therefore all a
>>PIC has to do is convert from AT or PS2 keyboard codes direct to ASCII!
>>
>>Then mobile TMD700 APRS users (all messages are displayed on the front of
>>the radio) can easily TYPE responses using only a keyboard/Pic instead of
>>having to have a LAPTOP or use the TTone pad...
>>
>>Ill buy one!
>
>I had looked in the past for someone who had done pic code for PS-2 input
>for another project and have a few links to share if someone cares to
>tackle the project. It looks like it would only be a weekend project.
>
>I'm not sure how much I would use this, but it would be cool.
>
>Bob, do you have the specifics on how to do the interface? I do not think
>that simply sending chars on the serial port results in sending messages,
>there must be some sort of protocol.
>
>I finally got around to placing my order for a couple D700's, one for my
>boat and the other for my new truck (gets here today or tomorrow!). I
>doubt I'll ever get around to it, I'd love to see someone else try at
>this...
>
>Here are some good places to start:
>
>http://www.repairfaq.org/filipg/LINK/PORTS/F_Keyboard_FAQ.html

>http://www.geocities.com/SiliconValley/Bay/8302/keybrd.htm
>http://www.hth.com/filelibrary/TXTFILES/keyboard.txt
>http://ourworld.compuserve.com/homepages/steve_lawther/keybinfo.htm
>
>Steve K4HG
>
>---
>You are currently subscribed to picsig as: ka1kjz@home.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Re: PIC-E tracker

From: Doug McFadden <kc7imr@orednet.org>
Date: Sun, 9 Jan 2000 12:50:27 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59421-2000.01.09-17.02.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 6 Jan 2000, John Hansen wrote:

> Date: Thu, 06 Jan 2000 21:32:04 -0500
> From: John Hansen <hansen@fredonia.edu>
> Reply-To: TAPR PIC Development Special Interest Group
>   <picsig@lists.tapr.org>
> To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
> Subject: [picsig] Re: PIC-E tracker
>
> At 05:31 PM 1/6/00 -0800, you wrote:
> >Question: Is there enough code space in the PIC-E chip for code to
> >simulate a KPC 3+ tnc mode --- increase the xmit time to 30 minutes and
> >send GPGGA strings while NOT moving or 1 minute and GPRMC while moving?
> >Maybe a relay powered off the ignition, contacts accross the mode switch
> >of the PIC-E to set moving/stationary? Or maybe just GPGGA and the rate
> >change?
>
> I think the answer to your question is yes. I did a version of GPS-E-2
> that was designed to work with the TRimble SVee6 GPS unit. It relies on
> the GGA and VTG sentences. It is posted on the TAPR website. But perhaps
> you mean it should actually send the GGA sentence. If so, this would
> require recoding, but would probably take less space in the PIC than the
> current firmware because a lot of space is used to do the MIC-E style
> compression.
>
> John W2FS
>
Sounds like it might fit. Don't need the MIC-E style compression.

73 de Doug

KC7IMR
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Re: PIC-E tracker

From: Doug McFadden <kc7imr@orednet.org>
Date: Sun, 9 Jan 2000 12:47:56 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59422-2000.01.09-17.02.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 6 Jan 2000, Byon Garrabrant wrote:

> Date: Thu, 6 Jan 2000 18:19:04 -0800
> From: Byon Garrabrant <byon@mail.com>
> Reply-To: TAPR PIC Development Special Interest Group
>   <picsig@lists.tapr.org>
> To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
> Subject: [picsig] Re: PIC-E tracker

>
> On 6 Jan 00, at 17:31, Doug McFadden wrote:
>
> > Question: Is there enough code space in the PIC-E chip for code to
> > simulate a KPC 3+ tnc mode --- increase the xmit time to 30 minutes and
> > send GPGGA strings while NOT moving or 1 minute and GPRMC while moving?
> > Maybe a relay powered off the ignition, contacts accross the mode switch
> > of the PIC-E to set moving/stationary? Or maybe just GPGGA and the rate
> > change?
>
> Both the C and ASM versions of PIC-E are pretty hard coded for
> the RMC format. The ASM version is about 70% full code space
> wise. I could probably add support to read either sentence if there
> was enough interest. What's the benefit of the other string?

It's shorter than RMC. I don't need heading & speed when I'm not moving.
>
> Multiple transmit rates has been discussed before, but no
> consesus was reached as to the best algorithm. I think John's PIC-
> E C code has something already to drop the repeat rate. My soon-
> to-be TinyTrak also has two switchable beacon rates.

No algorithm needed, use the switch/relay. When I'm not moving becon
every 30 minutes, moving every minute.

We're not talking a "mic" connection setup here, a simplified KPC-3
replacement, separate radio, etc. (making the KPC-3 avaialble for hilltop
use). Don't even need the compressed data since it won't be using voice
repeaters.

>
> But PIC-E code version support two switched preferences, so you
> could have the two rates switched by ignition.

I'll take a look at it.
>
> Byon
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
>
73 de Doug

KC7IMR
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: APRSGPS PC boards

From: Art Coulombe <w7hgk@innw.net>
Date: Sun, 09 Jan 2000 16:54:14 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59444-2000.01.09-19.10.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>
> Hi Ron:

I have 2 of the aisin boards one has the gst-2 from bryon and works okay. I would
like a mod that you mentioned below, an intergrated unit how is the project going?

tnxs 73s art

> Along came that US$20 Aisin GPS receiver, so it was decided to modify the
> PC board so as to integrate the GPS RX, its backup battery and the 12C672
> data conversion chip. A smallish board 4" x 2 1/2" has resulted .. its about
> 1 3/8"
> high with the RX mounted on its bottom.
>
>

> ---

> You are currently subscribed to picsig as: w7hgk@innw.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Re: TMD700 Message Keyboard!

From: "Scott Morris" <smorris@mindspring.com>
Date: Sun, 9 Jan 2000 20:34:22 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59452-2000.01.09-19.49.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

So could you then install a battery in the PIC project box, or use current
from the car?

Scott
----- Original Message -----
From: John Hansen <john@hansen.net>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Sunday, January 09, 2000 3:44 PM
Subject: [picsig] Re: TMD700 Message Keyboard!

> At 01:59 PM 1/9/00 -0500, Steve Dimse wrote:
>
> >I had looked in the past for someone who had done pic code for PS-2 input
> >for another project and have a few links to share if someone cares to
> >tackle the project. It looks like it would only be a weekend project.
>
> One note from the docs Steve supplied: Somewhere in there it says that a
> typical keyboard draws up to 300 ma. Don't try to run that through a
> 78L05! Also, I'd be very wary of trying to draw that much current off the
> +8 volts on the mic jack. (I don't own one of these radios so I've not
> looked at the specs, but 300 ma from the mic jack seems unlikely to me).
>
> John W2FS
>
>
> ---
> You are currently subscribed to picsig as: smorris@mindspring.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Looking for a cheap GPS board

From: Robert Rochte <robert@rochte.com>
Date: Mon, 10 Jan 2000 00:13:00 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59481-2000.01.09-21.37.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Does anyone know where I could find a cheap GPS board like the Aisin or
something comparable? I missed out on the Aisin deal by about two days --
been looking ever since.

TIA!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] RE: Looking for a cheap GPS board <LYR11446-59481-2000.01.09-21.37.47--rdrines#pacbell.net@lists.tapr.org>

From: "Roger D. Rines" <rdrines@pacbell.net>
Date: Sun, 09 Jan 2000 20:00:06 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59491-2000.01.09-22.10.52--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've been in the same boat as you. Since, the only thing that I've
found an impressive unit by San Jose navigation, model FV-12 -
NMEA-0183 output - no antenna (http://www.sanav.com/fv-12.htm), but
at $80 in single units, it is out a hobbyist reach.

They will do better on pricing if their is a multiple unit sale but
it won't reach the Aisin price range anytime soon.

If anyone else finds anything that is worth considering I'm sure
interested in a few units.

Roger...
WB1CFQ
mailto:rdrines@pacbell.net

-----Original Message-----
From: bounce-picsig-11446@lists.tapr.org
[mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Robert Rochte
Sent: Sunday, January 09, 2000 9:13 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] Looking for a cheap GPS board

Does anyone know where I could find a cheap GPS board like the Aisin
or
something comparable? I missed out on the Aisin deal by about two
days --
been looking ever since.

TIA!

You are currently subscribed to picsig as: rdrines@pacbell.net
To unsubscribe send a blank email to
leave-picsig-6890E@lists.tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] Re: TMD700 Message Keyboard!

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Sun, 9 Jan 2000 23:23:21 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59502-2000.01.09-22.40.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 9 Jan 2000, Steve Dimse wrote:

> >   The ability to make a Keyboard for text message entry on the mobile
> I'm not sure how much I would use this, but it would be cool.
>
> Bob, do you have the specifics on how to do the interface? I do not think
> that simply sending chars on the serial port results in sending messages,
> there must be some sort of protocol.

No, Kenwood surprised me on this one. They said they will send the specs
once it is translated to english. But in the quoted message I included
from Walter Dunkle, he seemed to have the essence figured out...

Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: TMD700 Message Keyboard!

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Mon, 10 Jan 2000 21:53:48 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: <ka1kjz@home.com>
Message-ID: <LYR6890-59666-2000.01.10-21.10.04--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

on 1/9/00 5:09 PM, Ronald C. Barnes at ka1kjz@home.com wrote:

> Jeff Bachiochi of Circuit Cellar Magazine already interfaced a PC keyboard
> to a PIC, '84 as I recall, in his "From the bench" column. I havent had
> the chance to look up the article, but it was entitled "Got those 16800
> baud blues" or similar (as thats the actual "baudrate" of a keyboard, if
> you did the math)
>
> It was in '98 or '97 as I recall. I moved recently, so this is a perfect
> excuse to get my CC INK library back in shape.
>
> Ron :)
>

I checked the Circuit Cellar Ink online archives and they have the source
code only for the article,

"From the Bench□KBDXLATOR□A Cure for the 16.6-kbps Odd Parity Blues□Jeff
Bachiochi (code only)"

 from Issue #86 September 1997

--
Brian B. Riley --> http://members.macconnect.com/~brianbr
 For PGP Keys <mailto:brianbr@wulfden.org?subject=Get%20PGP%20Key>

 "The strongest evidence of intelligent life on other planets is that
  they haven't come here yet.' -- from somewhere on The Net

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] Re: TMD700 Message Keyboard!

From: "Byon Garrabrant" <byon@mail.com>
Date: Mon, 10 Jan 2000 21:22:26 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59686-2000.01.10-23.39.52--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >Pic programmers!
> >
> >   The ability to make a Keyboard for text message entry on the mobile
> >TMD700 radio just got REAL easy. Apparently Kenwood did include a
> >commadn via the serial port for direct entry of APRS messages. Therefore
> >all a PIC has to do is convert from AT or PS2 keyboard codes direct to
> >ASCII!
> >
> >Then mobile TMD700 APRS users (all messages are displayed on the front of
> >the radio) can easily TYPE responses using only a keyboard/Pic instead of
> >having to have a LAPTOP or use the TTone pad...
> >
> >Ill buy one!
>
> I had looked in the past for someone who had done pic code for PS-2 input
> for another project and have a few links to share if someone cares to
> tackle the project. It looks like it would only be a weekend project.
>
> I'm not sure how much I would use this, but it would be cool.
>
> Bob, do you have the specifics on how to do the interface? I do not think
> that simply sending chars on the serial port results in sending messages,
> there must be some sort of protocol.
>
> I finally got around to placing my order for a couple D700's, one for my
> boat and the other for my new truck (gets here today or tomorrow!). I
> doubt I'll ever get around to it, I'd love to see someone else try at
> this...

I've written PIC code to talk to PC keyboards, and also to generate
DTMF and ascii serial. If no one else wants to do it, and I find
some time, I'd be willing. I don't have the radio, so testing would be
a pain.

Byon
_____

Byon Garrabrant N6BG byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] Re: TMD700 Message Keyboard!

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Tue, 11 Jan 2000 11:26:26 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59816-2000.01.11-12.44.35--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I would be glad to test it.

Tom Schaefer NY4I

-----Original Message-----
From: Byon Garrabrant <byon@mail.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Monday, January 10, 2000 10:24 PM
Subject: [picsig] Re: TMD700 Message Keyboard!

>> >Pic programmers!
>> >
>> > The ability to make a Keyboard for text message entry on the mobile
>> >TMD700 radio just got REAL easy. Apparently Kenwood did include a
>> >commadn via the serial port for direct entry of APRS messages.
Therefore
>> >all a PIC has to do is convert from AT or PS2 keyboard codes direct to
>> >ASCII!
>> >
>> >Then mobile TMD700 APRS users (all messages are displayed on the front
of
>> >the radio) can easily TYPE responses using only a keyboard/Pic instead
of
>> >having to have a LAPTOP or use the TTone pad...
>> >
>> >Ill buy one!
>>
>> I had looked in the past for someone who had done pic code for PS-2 input
>> for another project and have a few links to share if someone cares to
>> tackle the project. It looks like it would only be a weekend project.
>>
>> I'm not sure how much I would use this, but it would be cool.
>>
>> Bob, do you have the specifics on how to do the interface? I do not think
>> that simply sending chars on the serial port results in sending messages,
>> there must be some sort of protocol.
>>
>> I finally got around to placing my order for a couple D700's, one for my
>> boat and the other for my new truck (gets here today or tomorrow!). I
>> doubt I'll ever get around to it, I'd love to see someone else try at
>> this...
>
>I've written PIC code to talk to PC keyboards, and also to generate
>DTMF and ascii serial. If no one else wants to do it, and I find
>some time, I'd be willing. I don't have the radio, so testing would be
>a pain.
>
>Byon
>_____
> Byon Garrabrant N6BG byon@mail.com
>
>
>---
>You are currently subscribed to picsig as: toms@inconnect.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Re: TMD700 Auto-PM select based on ignition

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Tue, 11 Jan 2000 11:28:31 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-59817-2000.01.11-12.45.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Another PIC possibility for this is to have a relay attached to the ignition
that when the car is off automatically selected PM X (4 in my case). This is
my "parked" profile which turns the beacon rate down and does a few other
things. When the car is turned on, it would select PM 1 or whatever. It does
look like a simple serial protocol on the radio.

Tom
-----Original Message-----
From: Byon Garrabrant <byon@mail.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Monday, January 10, 2000 10:24 PM
Subject: [picsig] Re: TMD700 Message Keyboard!

>> >Pic programmers!
>> >
>> >   The ability to make a Keyboard for text message entry on the mobile
>> >TMD700 radio just got REAL easy. Apparently Kenwood did include a
>> >commadn via the serial port for direct entry of APRS messages.
Therefore
>> >all a PIC has to do is convert from AT or PS2 keyboard codes direct to
>> >ASCII!
>> >
>> >Then mobile TMD700 APRS users (all messages are displayed on the front
of
>> >the radio) can easily TYPE responses using only a keyboard/Pic instead
of
>> >having to have a LAPTOP or use the TTone pad...
>> >
>> >Ill buy one!
>>
>> I had looked in the past for someone who had done pic code for PS-2 input
>> for another project and have a few links to share if someone cares to
>> tackle the project. It looks like it would only be a weekend project.
>>
>> I'm not sure how much I would use this, but it would be cool.
>>
>> Bob, do you have the specifics on how to do the interface? I do not think
>> that simply sending chars on the serial port results in sending messages,
>> there must be some sort of protocol.
>>
>> I finally got around to placing my order for a couple D700's, one for my
>> boat and the other for my new truck (gets here today or tomorrow!). I
>> doubt I'll ever get around to it, I'd love to see someone else try at
>> this...
>
>I've written PIC code to talk to PC keyboards, and also to generate
>DTMF and ascii serial. If no one else wants to do it, and I find
>some time, I'd be willing. I don't have the radio, so testing would be
>a pain.
>
>Byon
>_____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
>
>---
>You are currently subscribed to picsig as: toms@inconnect.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] RX_rly

From: Ron Graham <rongraham@magnet.com.au>
Date: Fri, 14 Jan 2000 07:11:29 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-60345-2000.01.13-15.25.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Has anyone had experience in using the RX_rly program (from TAPR ftp site)
that allows a PIC-E to work as a digi?

  What I notice is that even with 25 watts and a 5/8 vertical on my mobile,
the range, with APRS, over the local terrain is limited to just a couple of
miles.
Hence my interest in some simple, inexpensive digis .. but I notice the
text file associated with RX_rly talks about different input and output
frequencies for the radio.

Ron, VK4BRG.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] 12C672 Programmer

From: Bill Hosking <billh@inficad.com>
Date: Thu, 13 Jan 2000 18:32:21 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-60367-2000.01.13-19.40.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm wondering if anyone can point me to a simple programming circuit and
software for the 12C672 device. I got spoiled on the 16F84 since there was
a simple circuit in QST and software (and of course I like to do it myself)
Thanks
Bill W7JSW
billh@inficad.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] RE: RX_RLYxx.ASM

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Sat, 15 Jan 2000 07:17:56 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-60660-2000.01.15-07.33.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ron,
The easiest way to find out if the PIC-E digi will work for your
application is download it and give it a try. Since RX_RLY
is designed to work with a stock PIC-E, no mods are required.
The relay will work fine on a simplex channel. The reason I mentioned
seperate frequencies was because I'd originally envisioned using
it with a voice repeater. In that configuration, it would listen to the
repeater's input and send the data out on the APRS freq.
As a result, one of this program's limitations is that it only relays
compressed mic-E/PIC-E packets. However, in receive only mode,
it should serially display all packets it decodes. Using that mode
might give you an idea if it will perform to your liking.
One other note, the PIC-E doesn't provide any DC isolation between
receive audio and the input to the MX614 modem IC.
I and others have noticed much improved reception by placing a
capacitor in series with the audio in. I use a NP 1 uF.
If it does work for you, consider doing the FRAM mod. The software
I've written for it is much more like a real tnc.

Hope this helps,
Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

26. [picsig] RE: RX_RLYxx.ASM

From: Ron Graham <rongraham@magnet.com.au>
Date: Mon, 17 Jan 2000 08:49:25 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-60879-2000.01.16-17.03.48--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Attention Mike,
>The easiest way to find out if the PIC-E digi will work for your
>application is download it and give it a try. Since RX_RLY
>is designed to work with a stock PIC-E, no mods are required.
>The relay will work fine on a simplex channel. The reason I mentioned
>seperate frequencies was because I'd originally envisioned using
>it with a voice repeater. In that configuration, it would listen to the
>repeater's input and send the data out on the APRS freq.
>As a result, one of this program's limitations is that it only relays
>compressed mic-E/PIC-E packets. However, in receive only mode,
>it should serially display all packets it decodes. Using that mode
>might give you an idea if it will perform to your liking.

OK, will give it a try in the digi mode.
One problem .. I note the program on the TAPR site is in xx.asm   .. wonder
if anyone has the xx.hex version?

>One other note, the PIC-E doesn't provide any DC isolation between
>receive audio and the input to the MX614 modem IC.
>I and others have noticed much improved reception by placing a
>capacitor in series with the audio in. I use a NP 1 uF.

Noted.

>If it does work for you, consider doing the FRAM mod. The software
>I've written for it is much more like a real tnc.

Saw some reference to this some time ago, but must admit it went over my head!
What is FRAM? .. in a few words .. ? something to do with extra memory.

Thanks, Ron, VK4BRG.

>Hope this helps,
>Mike N0QBH
>
>
>
>
>
>---
>You are currently subscribed to picsig as: rongraham@magnet.com.au
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

27. [picsig] Re: picsig digest: January 16, 2000

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Mon, 17 Jan 2000 21:54:09 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-61140-2000.01.17-22.09.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

There's a file in the software directory containing the
Microchip assembler called asm22000.zip

Download it, unzip it and run it.
Load RX_RLY12.ASM into it and click on assemble.
It'll output a few files with different extentions including
the .hex you'll need to program with.

The FRAM mod is mostly adding wires and a 8 pin socket to
the PIC-E, giving it 2k of fast, extra memory. This allows it
to copy and store entire packets instead of just the 1st 50
bytes or so. The mod file is also in the software directory
and is named Rampicer11.txt

Hope this helps,
Mike N0QBH
-----Original Message-----
From: TAPR PIC Development Special Interest Group digest
<picsig@lists.tapr.org>

To: picsig digest recipients <picsig@lists.tapr.org>
Date: Sunday, January 16, 2000 11:45 PM
Subject: picsig digest: January 16, 2000

>TAPR PIC Development Special Interest Group Digest for Sunday, January 16,
2000.
>
>1. RE: RX_RLYxx.ASM
>
>--
>
>Subject: RE: RX_RLYxx.ASM
>From: Ron Graham <rongraham@magnet.com.au>
>Date: Mon, 17 Jan 2000 08:49:25 +1000
>X-Message-Number: 1
>
>Attention Mike,
>>The easiest way to find out if the PIC-E digi will work for your
>>application is download it and give it a try. Since RX_RLY
>>is designed to work with a stock PIC-E, no mods are required.
>>The relay will work fine on a simplex channel. The reason I mentioned
>>seperate frequencies was because I'd originally envisioned using
>>it with a voice repeater. In that configuration, it would listen to the
>>repeater's input and send the data out on the APRS freq.
>>As a result, one of this program's limitations is that it only relays
>>compressed mic-E/PIC-E packets. However, in receive only mode,
>>it should serially display all packets it decodes. Using that mode
>>might give you an idea if it will perform to your liking.
>
>OK, will give it a try in the digi mode.
>One problem .. I note the program on the TAPR site is in xx.asm   .. wonder
>if anyone has the xx.hex version?
>
>
>>One other note, the PIC-E doesn't provide any DC isolation between
>>receive audio and the input to the MX614 modem IC.
>>I and others have noticed much improved reception by placing a
>>capacitor in series with the audio in. I use a NP 1 uF.
>
>Noted.
>
>>If it does work for you, consider doing the FRAM mod. The software
>>I've written for it is much more like a real tnc.
>
>Saw some reference to this some time ago, but must admit it went over my
head!
>What is FRAM? .. in a few words .. ? something to do with extra memory.
>
>Thanks, Ron, VK4BRG.
>
>
>>Hope this helps,
>>Mike N0QBH
>>
>>
>>
>>
>>
>>---
>>You are currently subscribed to picsig as: rongraham@magnet.com.au
>>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>>
>>
>
>
>
>
>---
>
>END OF DIGEST
>
>---
>You are currently subscribed to picsig as: mikeberg@midstate.tds.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] PIC-E programming troubles.....

From: John Morley <endeavor@ultranet.com>
Date: Tue, 18 Jan 2000 23:00:31 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-61380-2000.01.18-22.53.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

I'm having trouble programming the PIC-E using a Sony laptop (desktop computer is fine). I suspect that the Sony serial port does not have enough "poop" to generate the required programming voltage. Has anyone tried disabling the programming voltage circuitry on the PIC-E, and using an external +12V supply for the programming voltage??? I can't see why this would not work. Any comments??

John KA1JMF

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] RE: PIC-E programming troubles.....

From: "Steven R. Bible" <srbible@gate.net>
Date: Wed, 19 Jan 2000 19:46:16 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-61548-2000.01.19-18.42.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,

The programmer on the PIC-E basically "cheats" on the specified power requirment to program the PIC16F84. The spec sheet says that +13V is needed for Vpp. But the spec sheet also mentions a required difference in voltage between Vpp and Vcc. I believe this is where the PIC-E programmer succeeds.

And you've answered it, yes Laptops are notorious in serial ports hardware.

You certainly can try upping the Vpp with another power source. It should work. And no, I have not heard of anyone doing this.

One other thing to try is shorting your serial cable. Long cables will add resistance and drop the voltage.

Good luck!

- Steve, N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of John Morley
> Sent: Tuesday, January 18, 2000 11:01 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] PIC-E programming troubles.....
>
>
> Hi,
>
> I'm having trouble programming the PIC-E using a Sony laptop (desktop
> computer is fine). I suspect that the Sony serial port does
> not have enough
> "poop" to generate the required programming voltage. Has
> anyone tried
> disabling the programming voltage circuitry on the PIC-E, and
> using an
> external +12V supply for the programming voltage??? I can't
> see why this
> would not work. Any comments??
>
> John KA1JMF

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] RE: PIC-E programming troubles.....

From: steven <sdewell@speedchoice.com>
Date: Wed, 19 Jan 2000 08:29:47 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-61568-2000.01.19-21.18.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,
        Yes this works. I use an 18volt supply regulated down to 13 volts.
I works well with the industrial version of the 16f84 which is more
selective on the proper programming voltage.

Steven L. DeWell KB7NKB

"Steven R. Bible" wrote:

> John,
>
> The programmer on the PIC-E basically "cheats" on the specified power
> requirment to program the PIC16F84. The spec sheet says that +13V is
> needed for Vpp. But the spec sheet also mentions a required difference
> in voltage between Vpp and Vcc. I believe this is where the PIC-E
> programmer succeeds.
>
> And you've answered it, yes Laptops are notorious in serial ports
> hardware.
>
> You certainly can try upping the Vpp with another power source. It
> should work. And no, I have not heard of anyone doing this.
>
> One other thing to try is shorting your serial cable. Long cables will
> add resistance and drop the voltage.
>
> Good luck!
>
> - Steve, N7HPR
>
> > -----Original Message-----
> > From: bounce-picsig-6889@lists.tapr.org
> > [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of John Morley
> > Sent: Tuesday, January 18, 2000 11:01 PM
> > To: TAPR PIC Development Special Interest Group
> > Subject: [picsig] PIC-E programming troubles.....
> >
> >
> > Hi,
> >
> > I'm having trouble programming the PIC-E using a Sony laptop (desktop
> > computer is fine). I suspect that the Sony serial port does
> > not have enough
> > "poop" to generate the required programming voltage. Has
> > anyone tried
> > disabling the programming voltage circuitry on the PIC-E, and
> > using an
> > external +12V supply for the programming voltage??? I can't
> > see why this
> > would not work. Any comments??
> >
> > John KA1JMF
>
> ---
> You are currently subscribed to picsig as: sdewell@speedchoice.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

31. [picsig] GPL'ed PSK31 source, the next HF "APRS"?

From: Jeff King <jeff@aerodata.net>
Date: Sat, 22 Jan 2000 19:39:19 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-62083-2000.01.22-18.35.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I ran across this the other day:

http://www.geocities.com/ae4jy/index.htm

Its a full implementation of PSK31, in Visual C++ 6.0, of a PSK31
program called WinPSK. The kicker is it includes the source.

And here is a PIC PSK31 beacon, which could easily have grafted
on it some GPS decoding code. Its written in CCS "C" with some
assembler. See:

http://www.ussc.com/~turner/psk_transmitter.html

I'm sure a few of you have been following with interest the experiments
by Bob rebroadcasting the local VHF lans on 1200 baud 10 meter
AX.25. However, as many are finding, AX.25 is ill-suited for any type
of broadcast (UI frame) transmission, in particular on HF.

This might be a good extension to the concept Bob has started. Now,
we will need to do some serious compression here, like dropping all
the messaging/beacons and converting the standard APRS/NEMA
stings to compressed format (or even smaller) but it might be doable
using the QPSK mode of PSK31 (which has a limited version of
FEC). I think one would need to analyze the varicode tables to see
what makes the most sense.

I haven't yet done anything here, but the concept is exciting

Here is a clip from one of the web pages.

73

Jeff

>PSK31 is an amateur radio communications mode introduced by Peter Martinez, >G3PLX, that uses phase
modulation and
special character coding. It
>allows robust narrow bandwidth keyboard "Chat" type communications between two >or more stations.

>WinPSK evolved while experimenting with DSP on a PC soundcard. This program >was not intended to be a
full-featured
program for serious PSK31
>use, but rather as a learning tool for those interested in the "inner workings" of a >functional PSK31
program. This
program, it's source code, and a
>companion document "WinPSK Technical Reference Manual", should be of some use >for someone who wants to
 improve upon
and create a full
>featured version.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] New to PIC's

From: Jacobtennant@aol.com
Date: Sat, 22 Jan 2000 19:53:38 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-62085-2000.01.22-18.50.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am new to pic programming and I am looking for some good books to read to
learn and understand how to program pic's.

I have downloaded all of the pic files from TAPR and have latest version of
MPLAB full version.

My main interest lies in pic's useage for packet/APRS. Also the ides of a pic
that will do everything a KPC3+ does really excites me.

Aslo plan on trying to use a PICe as a digipeater running Rx_Rly12.

So please help me get started the right way.

PS: No real previous experience in programming or electronics. I drive a

school bus for a living.

73's
Jacob Tennant
KB8QIR
3938.75N/07959.33W
Morgantown,WV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] Re: New to PIC's

From: Neil Thomas <meltek_n@global.co.za>
Date: Sun, 23 Jan 2000 21:34:25 +0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-62312-2000.01.23-22.34.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

We started a PIC work group at the Port Elizabeth Amateur Radio Society (South Africa) and I have generated some basic notes to assist anyone wanting to get started with the PIC's. The notes start off with basics and then we progressed to a simple project to display the value of a binary number switched by 8 switches on three seven segment displays. An interrupt that counts down to zero from the preset value is also included.

Unfortunately the notes are not yet on a web site but drop me a note at meltek_n@global.co.za if you want to receive them.

73's
Neil Thomas ZR2NT

Jacobtennant@aol.com wrote:

> I am new to pic programming and I am looking for some good books to read to
> learn and understand how to program pic's.
>
> I have downloaded all of the pic files from TAPR and have latest version of
> MPLAB full version.
>
> My main interest lies in pic's useage for packet/APRS. Also the ides of a pic
> that will do everything a KPC3+ does really excites me.
>
> Aslo plan on trying to use a PICe as a digipeater running Rx_Rly12.
>
> So please help me get started the right way.
>
> PS: No real previous experience in programming or electronics. I drive a
> school bus for a living.
>
> 73's
> Jacob Tennant
> KB8QIR
> 3938.75N/07959.33W
> Morgantown,WV
>
> ---
> You are currently subscribed to picsig as: meltek_n@global.co.za
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] Re: New to PIC's

From: "Brian B. Riley (KA2BQE)" <ka2bqe@amsat.org>
Date: Mon, 24 Jan 2000 18:50:18 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-62450-2000.01.24-17.47.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

on 1/23/00 2:34 PM, Neil Thomas at meltek_n@global.co.za wrote:

> We started a PIC work group at the Port Elizabeth Amateur Radio Society (South
> Africa) and I have generated some basic notes to assist anyone wanting to get
> started with the PIC's. The notes start off with basics and then we

> progressed
> to a simple project to display the value of a binary number switched by 8
> switches on three seven segment displays.   An interrupt that counts down to
> zero
> from the preset value is also included.
>
> Unfortunately the notes are not yet on a web site but drop me a note at
> meltek_n@global.co.za if you want to receive them.

 I would like to get a copy of the notes, TNX

  73 de brian, <mailto:ka2bqe@amsat.org>
--
   Brian B. Riley, KA2BQE
   APRS WideN-N Digi KA2BQE-3
     =4431.73NN07251.55W#PHG5766/Underhill Ctr, VT
  <http://members.macconnect.com/~brianbr>
  <http://www.wulfden.org>
  For PGP Keys <mailto:brianbr@wulfden.org?subject=Get%20PGP%20Key>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

February 2000

Original source file: picsig.0002
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0002

1. [picsig] PIC-E as digi

From: Ron Graham <rongraham@magnet.com.au>
Date: Wed, 02 Feb 2000 08:10:20 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-63991-2000.02.01-16.03.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have just had the opportunity to try (actually a clone I did of) the PIC-E
with a PIC programmed with RX-RLY12 by Mike, N0QBH, so as to turn the PIC-E
into a digi for APRS use.
  A couple of initial problems:
a) the "busy" LED flickering afer a peroid of time with no signal into the radio
   .. was resolved by placing a 100 R resistor across the audio output from
the   radio. I formed the conclusion that the radio audio output coupling
electro.   was a bit leaky and as the input to the MX-614 is quite a high
impedance, the   resultant extra DC at its input was causing the flickering
and eventual   continuous lit state. Really a radio problem!!
b) too much audio from the radio caused erratic operation of the "valid" LED.
   Simply reduce audio level till the "valid" LED lights solidly while the
"busy" LED is lit.
c) I note the unit will still function as a digi with un-squelched audio
from   the radio.
d) the tests I did were just in the "shack", but did have the receive set up
responding to this digi, and not the originating radio. Obviously, the next
step is test the whole system over a wide area.
e) the purists may be upset that the PIC-E digi does not add a digi callsign
to   the packet string. However, I think that this simple, inexpensive digi
has   applications in certain circumstances in linking possibly low
powered APRS   tracker(s) to the outside world.

  Thanks to Mike, N0QBH for the program.

Ron, VK4BRG.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: PIC-E as digi

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Tue, 1 Feb 2000 18:57:04 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64002-2000.02.01-17.54.35--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 2 Feb 2000, Ron Graham wrote:

> e) the purists may be upset that the PIC-E digi does not add a digi callsign
> to   the packet string. However, I think that this simple, inexpensive digi
> has   applications in certain circumstances in linking possibly low
> powered APRS   tracker(s) to the outside world.

To me the great applications of these is in INDOOR TRACKING. See my
VICINITY TRACKING concept posted last year before dayton. By placing one
of these digis in each room at dayton on a deaf-as-a-post receiver, then
as people walk from room to room with their THD7's still beaconing away,
then the callsign-substitution of these BOX-N digis will show us where
they are.

APRSdos will recognize the vicinity of the station to the neaarest BOX-N
digi and plot the user randomly on the map within the same room as the
BOX-N digi...

With TNC's costing over $150 these days, I couildnt find enough people to
put together the 7 or 8 BOX-N digis needed for all the venue's in the HARA
Arena last year... The PIC-E digi is PERFECT for this... but it must do
call sign substitution... :-)

Bob, WB4APR

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Re: PIC-E as digi

From: "Darryl Smith" <vk2tds@ozemail.com.au>
Date: Thu, 3 Feb 2000 21:22:08 +1100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64224-2000.02.03-04.29.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

G'Day

Of course using the PIC as a decoder of packets has certain advantages
too... They are cheap... I secured a few HT's cheap, and now I intend to put
together a multi-frequency listening repeater, forwarding packets to a UHF
link to a transmit site... Basically listening for APRS on 4-8 frequencies
and then transmitting aprs signals... The pic makes this cheap enough... I
might even be able to save money by sharing crystals on the PIC and the
modem IC.

I have also put together one of Ron Grahams boards, with more coming, and it
was great.. Real soon now I will put some photos up. Basically I put a $20
GPS and the PIC-E in a box with a XTAL HT and 4AH 6V lead acid battery.
Works well, except for loose RF inside the plastic box... Some spray on
metalic paint will fix that...

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
darryl@radio-active.net.au

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] New digipeater software

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Sat, 5 Feb 2000 09:30:18 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64587-2000.02.05-09.26.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

There's a new digipeater program for the PIC-E w/FRAM mod
in the \picsig\software directory called RAMDIGI0.ZIP which includes
some neat, new features.
With it's additional memory, it's able to handle packets upto 255 bytes.
It also parses the path data for an unused match to it's programmable
alias (default is WIDE) and inserts the users callsign (default is MYCALL)
in it's place. If no match is found, the packet is discarded.
It also has a second mode (SW 1 select) that repeats all valid packets
as is. This is mainly a test mode, however, it could have some limited
cross-band repeater uses.
The zip file includes instructions for editing ramdigi0.asm which can be
 found in the unzipped file ramdigi0.txt. There's also a text file called
ram_mod.txt containing instructions on how to add 2k of FRAM to your
PIC-E. This mod is non-destructive and is required in order for ramdigi0
to work. Cost is around $10.
Afterwards, the FRAM can be unplugged and the original PIC-E
software will work as before.

Like everything else I concoct, this is BETA ware - feedback is invited.

In closing, I'd again like to thank Byon Garrabrant N6BG for use of
his CRC and FRAM routines. Also wondering if anyone has had
any luck with the standalone PIC tone generator mentioned awhile ago
in this forum? Sounds like a neat way to cut the parts count.
73's
Mike Berg   N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Serial programmer for 16F877

From: "John F. Good" <johngood@ultranet.com>
Date: Sun, 6 Feb 2000 13:28:55
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64773-2000.02.06-13.26.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Have been looking at souping up the PIC-E by using the 16F877. Anyone know
where to get a serial programmer for this chip (similar to what PicProg
does for the 16F84)?

Thanks.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: Serial programmer for 16F877

From: Greg Fountain <sv_calif@ix.netcom.com>
Date: Sun, 06 Feb 2000 14:39:19 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64794-2000.02.06-16.36.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,

The simplest way to program the device (16F877) is to use Microchips's low cost
In-Circuit Debugger (MPLAB-ICD). It's available from Digi-key for about $159.

It makes code development a snap using your windows 95/98 PC and Microchip's
MPLAB-IDE. I have also used it in conjunction with the Custom Computer Services
$99 PIC C Compiler (http://www.ccsinfo.com/). In addition, you can not only use
this kit as a mini In-Circuit Emulator (ICE) you can also use the device to
program and debug a design where you have a 16F877 soldered into your PC board.
If memory serves me correct you have to give up 2 I/O pins to support this
feature.

Greg Fountain
Menlo Park, CA
greg@telvex.com

"John F. Good" wrote:

> Have been looking at souping up the PIC-E by using the 16F877. Anyone know
> where to get a serial programmer for this chip (similar to what PicProg
> does for the 16F84)?
>
> Thanks.
>
[Attachment: sv_calif.vcf; text/x-vcard; 224 bytes]

7. [picsig] Re: Serial programmer for 16F877

From: "Terry Giles(2)" <terry@wireless.force9.co.uk>
Date: Mon, 7 Feb 2000 11:46:05 -0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64857-2000.02.07-05.43.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Those in the UK might be interested in the "ICEBREAKER" PIC
real time emulator based on the PIC16F877 that is published in the
March 2000 copy of Practical Electronics.

This is designed as an emulator for the whole PIC16 family using
the ICD(In Circuit Bebugging) hooks built into the 877 family.

A kit is available for £34.99 from:
http://www.magenta2000.co.uk

Regards

Terry

G4CDY

> John,
>
> The simplest way to program the device (16F877) is to use Microchips's low cost
> In-Circuit Debugger (MPLAB-ICD). It's available from Digi-key for about $159.
>

> It makes code development a snap using your windows 95/98 PC and Microchip's
> MPLAB-IDE. I have also used it in conjunction with the Custom Computer Services
> $99 PIC C Compiler (http://www.ccsinfo.com/). In addition, you can not only use
> this kit as a mini In-Circuit Emulator (ICE) you can also use the device to
> program and debug a design where you have a 16F877 soldered into your PC board.
> If memory serves me correct you have to give up 2 I/O pins to support this
> feature.
>
> Greg Fountain
> Menlo Park, CA
> greg@telvex.com
>
> "John F. Good" wrote:
>
> > Have been looking at souping up the PIC-E by using the 16F877. Anyone know
> > where to get a serial programmer for this chip (similar to what PicProg
> > does for the 16F84)?
> >
> > Thanks.
> >
>

Terry Giles
Wireless Research Ltd
37 Smithamdowns Road
PURLEY, Surrey, CR8 4NG UK
(0)20 8660 7555
(0)20 8645 0518 (FAX)
05857 68331 (GSM MOBILE)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Aisin $20 GPS RX's

From: Ron Graham <rongraham@magnet.com.au>
Date: Tue, 08 Feb 2000 07:31:57 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64928-2000.02.07-15.24.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Does anyone have any of those receivers surplus to their requirement?
A few people here in Australia are looking for one to turn into an APRS tracker.

Ron, VK4BRG.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Re: Aisin $20 GPS RX's

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 7 Feb 2000 14:15:25 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR6890-64933-2000.02.07-16.12.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 8 Feb 2000, Ron Graham wrote:

> Does anyone have any of those receivers surplus to their requirement?
> A few people here in Australia are looking for one to turn into an APRS tracker.
>
> Ron, VK4BRG.

I have 3 Aisin's available WITHOUT the amplified antennas. I bought
them just for their antennas (for my Trimble boards). Anyone interested?

It's easy enough to build amplified patch antennas for them from the
QST article. I'll even throw in the original antenna connector with
a few inches of coax still attached...   :-)

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Re: Aisin $20 GPS RX's

From: Tony Shepherd <TShepherd@RFMD.com>
Date: Mon, 7 Feb 2000 17:22:54 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64936-2000.02.07-16.20.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----Original Message-----
From: Curt Mills, WE7U [mailto:hacker@tc.fluke.com]
Sent: Monday, February 07, 2000 5:15 PM
To: TAPR PIC Development Special Interest Group
Cc: Curt Mills; Curt Mills, WE7U
Subject: [picsig] Re: Aisin $20 GPS RX's

On Tue, 8 Feb 2000, Ron Graham wrote:

> Does anyone have any of those receivers surplus to their requirement?
> A few people here in Australia are looking for one to turn into an APRS
tracker.
>
> Ron, VK4BRG.

I have 3 Aisin's available WITHOUT the amplified antennas. I bought
them just for their antennas (for my Trimble boards). Anyone interested?

It's easy enough to build amplified patch antennas for them from the
QST article. I'll even throw in the original antenna connector with
a few inches of coax still attached... :-)

Curt Mills, WE7U hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: tshepherd@rfmd.com
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] [Fwd: Proposed Trial: Online PIC Discussions]

From: Jeff King <jeff@aerodata.net>
Date: Tue, 08 Feb 2000 00:06:21 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-64969-2000.02.07-23.02.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Don't know much about this but might be interesting for those
that can have a window open while they program MicroChip stuff
in another.

-Jeff

-------- Original Message --------
Subject: Proposed Trial: Online PIC Discussions
Date: Tue, 8 Feb 2000 11:03:54 +1100
From: James Cameron <quozl@US.NETREK.ORG>
Reply-To: pic microcontroller discussion list <PICLIST@MITVMA.MIT.EDU>
Organization: Netrek Vanilla Server Dictator
To: PICLIST@MITVMA.MIT.EDU

If you know how to use Internet Relay Chat, stop by.

Channel #pic on server network irc.openprojects.net is now open.

For discussion of anything that might normally be discussed on the
PIClist and gnupic list but at a faster rate. I plan to be there
for US evening hours, which is Australian business hours.

If you don't know how to use IRC and would like to know how, go and
visit http://www.irchelp.org/

For reasons of efficiency, you do need to have a program installed in

order to use IRC. The web page above provides some information that
may assist. There is a client you can use within a web browser, check
out http://linux.com/chat/

Since I know how to use IRC, and use it as part of my job, I felt that
it may be beneficial to members of the PIClist to give it a try.

--
James Cameron   mailto:quozl@us.netrek.org   http://quozl.us.netrek.org/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Re: Aisin $20 GPS RX's

From: Ron Graham <rongraham@magnet.com.au>
Date: Wed, 09 Feb 2000 08:11:14 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65084-2000.02.08-16.04.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Curt,

>> Does anyone have any of those receivers surplus to their requirement?
>> A few people here in Australia are looking for one to turn into an APRS
tracker.
>>
>> Ron, VK4BRG.
>
>I have 3 Aisin's available WITHOUT the amplified antennas. I bought
>them just for their antennas (for my Trimble boards). Anyone interested?

I'll take them .. its a start. What say $10 each?? WE would need to organise
postage to VK. Please hold them for me.

>It's easy enough to build amplified patch antennas for them from the
>QST article. I'll even throw in the original antenna connector with
>a few inches of coax still attached...   :-)

OK on that.

Thanks, Ron.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Where is RAMDIGIO

From: Jacobtennant@aol.com
Date: Wed, 9 Feb 2000 21:46:57 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65253-2000.02.09-20.44.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Was looking around for the RAMDIGIO software and it is not in the any of the
ftp site directories?

73's
Jacob Tennant
KB8QIR
3938.75N/07959.33W
Morgantown,WV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] PCLINT for CCS

From: Jeff King <jeff@aerodata.net>
Date: Thu, 10 Feb 2000 19:07:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65379-2000.02.10-18.04.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

One of the users of the CCS webboard wrote a CCS interface for
PCLINT. I had a chance to use it with a large project last month,
and it really helped me find some typos that were stopping me from

getting a good compile. Highly recommended. See:

http://www.deja.com/=dnc/[ST_rn=ps]/getdoc.xp?AN=567939589

73

Jeff wb8wka

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Configuration of PIC encoder

From: Jacobtennant@aol.com
Date: Thu, 10 Feb 2000 22:07:25 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65403-2000.02.10-21.05.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

While looking thru the PDF manual there is no reference of how to insert
callsigns,digi path,symbol,etc...

73's
Jacob Tennant
KB8QIR
3938.75N/07959.33W
Morgantown,WV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Re: Configuration of PIC encoder

From: "Byon Garrabrant" <byon@mail.com>
Date: Thu, 10 Feb 2000 22:16:45 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65452-2000.02.11-00.16.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 10 Feb 00, at 22:07, Jacobtennant@aol.com wrote:

> While looking thru the PDF manual there is no reference of how to insert
> callsigns,digi path,symbol,etc...
>

If you are using the C code version (GPS-E-2x.ZIP), you use the
included GPS-E-2.EXE to configure it.

If you are using the ASM version (PICE09x.ZIP), you edit
OPTIONS.ASM, assemble the code, and upload.

Byon
_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] MIM in space...

From: Tony Shepherd <TShepherd@RFMD.com>
Date: Fri, 11 Feb 2000 11:38:14 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65507-2000.02.11-10.36.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Check out this site about the STENSAT which was just recently released. It
uses a modified MIM APRS module for control and telemetry. What is even more
exciting and interesting to me is that it uses a PA from the company I work
for as the transmitter PA.

Tony, KD4EQT

18. [picsig] RE: MIM in space...

From: Tony Shepherd <TShepherd@RFMD.com>
Date: Fri, 11 Feb 2000 13:07:15 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65520-2000.02.11-12.05.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Now that I have your attention her's the link for the STENSAT site.
http://users.erols.com/hheidt/ <http://users.erols.com/hheidt/>

Tony
KD4EQT

-----Original Message-----
From: Tony Shepherd [mailto:TShepherd@RFMD.com]
Sent: Friday, February 11, 2000 11:38 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] MIM in space...

Check out this site about the STENSAT which was just recently released. It
uses a modified MIM APRS module for control and telemetry. What is even more
exciting and interesting to me is that it uses a PA from the company I work
for as the transmitter PA.

Tony, KD4EQT

19. [picsig] RAMDIGI0 location

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Fri, 11 Feb 2000 22:32:06 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65587-2000.02.11-22.27.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>1. Where is RAMDIGIO

>Was looking around for the RAMDIGIO software and it is not in the any of
the
>ftp site directories?

>73's
>Jacob Tennant
>KB8QIR

All the PIC-E software I've written is located in the PICSIG area.
To get there from the TAPR home page, click on the Special Interest Group
located in the left panel. After that page loads, scroll down the left
panel
again until you see PICSIG. From there click on ftp area.
>From the list of directories click on software.
The whole directory should appear.

73 Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] Re: RAMDIGI0 location

From: Jacobtennant@aol.com
Date: Sat, 12 Feb 2000 11:14:45 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65632-2000.02.12-10.12.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Mike

73's
Jacob Tennant
KB8QIR
3938.75N/07959.33W
Morgantown,WV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] TEST ONLY: New ISP account

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 13 Feb 2000 08:59:46 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65716-2000.02.13-02.59.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hellooooooooooooooooooooo again
--
Ian Wade

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Pic-e programming

From: Lee810@aol.com
Date: Mon, 14 Feb 2000 01:56:07 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65879-2000.02.14-00.54.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just finished building a PIC-e and now the fun begins...figuring out how program it and how to wire it up to various radios. I made a very short straight-through cable connecting only those wires I saw connected on the schematic. It worked somewhat on a portable computer, but would fail for an 'Unable to program 0000' error. The other (non-portable) computer told me that I had a 'programmer initialization error' and would go no further.

I also have an Epic programmer and I used that to download the output.hex file created by the GPS-e-2 program. However, it found about 40 incorrect bytes in the image during the verify and this was consistent each time I programmed it. It seemed as if some of the bytes have one of their bits set high so I must have a bad 16F84. There was a gpse.hex file that came with the GPS-e-2 program that downloaded with no errors, presumably because the bytes with the bad bits lined up with ones in that image. On a related note, does anyone know of a good place to buy the 16F84? I checked Digikey, but they don't have it listed in their catalog.

I would like to know why there is a WARNING! WARNING! WARNING! in the manual that states that jumper 4 must be disconnected and the power removed from the PIC while programming. My Epic programmer uses 5V on Vdd to do its programming so I don't know why it wouldn't work with the PIC-e unless it has something to do with the ability to switch it on and off. It seems like an unreliable way to get the Vdd voltage and since not all computers are created equal and the TX line is not intended to power other devices.

Any advice for these problems would be greatly appreciated.

Thanks,

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] RE: Pic-e programming

From: Tony Shepherd <TShepherd@RFMD.com>
Date: Mon, 14 Feb 2000 08:30:51 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65912-2000.02.14-07.28.52--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

16F84 is listed on page 137 of DigiKey catalog Q001.

Good luck,
Tony
KD4EQT

-----Original Message-----
From: Lee810@aol.com [mailto:Lee810@aol.com]
Sent: Monday, February 14, 2000 1:56 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] Pic-e programming

I just finished building a PIC-e and now the fun begins...figuring out how
program it and how to wire it up to various radios. I made a very short
straight-through cable connecting only those wires I saw connected on the
schematic. It worked somewhat on a portable computer, but would fail for an

'Unable to program 0000' error. The other (non-portable) computer told me
that I had a 'programmer initialization error' and would go no further.

I also have an Epic programmer and I used that to download the output.hex
file created by the GPS-e-2 program. However, it found about 40 incorrect
bytes in the image during the verify and this was consistent each time I
programmed it. It seemed as if some of the bytes have one of their bits set

high so I must have a bad 16F84. There was a gpse.hex file that came with
the GPS-e-2 program that downloaded with no errors, presumably because the
bytes with the bad bits lined up with ones in that image. On a related
note,
does anyone know of a good place to buy the 16F84? I checked Digikey, but
they don't have it listed in their catalog.

I would like to know why there is a WARNING! WARNING! WARNING! in the manual

that states that jumper 4 must be disconnected and the power removed from
the
PIC while programming. My Epic programmer uses 5V on Vdd to do its
programming so I don't know why it wouldn't work with the PIC-e unless it
has
something to do with the ability to switch it on and off. It seems like an
unreliable way to get the Vdd voltage and since not all computers are
created
equal and the TX line is not intended to power other devices.

Any advice for these problems would be greatly appreciated.

Thanks,

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: tshepherd@rfmd.com
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] RE: Pic-e programming

From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 14 Feb 2000 10:25:06 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-65925-2000.02.14-09.23.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> I just finished building a PIC-e and now the fun
> begins...figuring out how
> program it and how to wire it up to various radios. I made a
> very short
> straight-through cable connecting only those wires I saw
> connected on the
> schematic. It worked somewhat on a portable computer, but
> would fail for an
> 'Unable to program 0000' error. The other (non-portable)
> computer told me
> that I had a 'programmer initialization error' and would go
> no further.
>
> I also have an Epic programmer and I used that to download
> the output.hex
> file created by the GPS-e-2 program. However, it found about
> 40 incorrect
> bytes in the image during the verify and this was consistent
> each time I
> programmed it. It seemed as if some of the bytes have one of
> their bits set
> high so I must have a bad 16F84. There was a gpse.hex file
> that came with
> the GPS-e-2 program that downloaded with no errors,
> presumably because the
> bytes with the bad bits lined up with ones in that image. On
> a related note,
> does anyone know of a good place to buy the 16F84? I checked

> Digikey, but
> they don't have it listed in their catalog.

Lee, Digi-Key does indeed sell the PIC16F84. Do a parts search on their
web site.

However, I'll send you a replacement PIC. Send me your mailing address
via a privite email to me and I'll get in the mail pdq.

> I would like to know why there is a WARNING! WARNING!
> WARNING! in the manual
> that states that jumper 4 must be disconnected and the power
> removed from the
> PIC while programming. My Epic programmer uses 5V on Vdd to do its
> programming so I don't know why it wouldn't work with the
> PIC-e unless it has
> something to do with the ability to switch it on and off. It
> seems like an
> unreliable way to get the Vdd voltage and since not all
> computers are created
> equal and the TX line is not intended to power other devices.

You're mixing apples and oranges... The programmer on the PIC-E is the
Ludipipo programmer as explained in John Hansen's W2FS QST Oct 1998
Article. The programmer effectively "steals" power from the RS-232 line
to program the PIC. Thus not requiring an external power supply. If
you read the data sheets on the PIC16F84, Vdd is suppose to be 13 volts.
And the other programming requirement is a difference in voltage between
Vdd and Vcc of at least 4 volts. It is the later that seems to allow
the PIC-E. Ludipipo, and your Epic programmer to work. We have
experienced one PIC that would not program with the PIC-E programmer
early in the evaluating phase of the PIC-E. We replaced the PIC and all
worked well. So there will be some PICs within manufacturing tolerances
that will not work with these programmers and will require a real
programmer.

That warning was put in there because we did not know what would
transpire. But many have power their PIC-E's during programming without
harm. But just realize that it is not necessary to power the PIC-E
during programming.

- Steve N7HPR

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] PIC-e works!

From: Lee810@aol.com
Date: Sat, 19 Feb 2000 15:21:38 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66698-2000.02.19-14.19.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'd like to thank Steve Bible and the others who responded to my questions
earlier this week about problems I was having with getting my PIC-E working.
 First of all, when I could not communicate with my PIC-E, it was a case of
having a program running in the background and tying up the serial port. It
was one of those stealthy programs that loads with windows I haven't used it
in weeks and simply forgot about it.

The second problem I encountered was corrupted data on the PIC which I
incorrectly attributed to a bad PIC chip. I had resorted to using my EPIC
programmer which did not work with the output.hex file created by the GPS-2-E
program because it had lower case letters for many (but not all) of the hex
characters (i.e., a-f instead of A-F). It downloaded the program properly,
but when I did a verify, there were a lot of miscompares and it wasn't as
simple as seeing that the letters had had their cases changed. It had added
single bits in adjacent bytes on each of the 2 byte packages that were being
compared. For example the verify program was waiting for a 34AA which came
back as 348A, 36A4 came back as 34A4, etc. I think if I update my EPIC
software, it will work OK as the problem did not reproduce on the Winepic
program. In any event, the programming tools that come with the PIC-E work
great so there's no big hurry to fix this particular issue with my EPIC
programmer.

Steve had graciously sent me a replacement PIC before I realized my problem

and when I offered to return it, he just asked me to donate it to a worthy high school student. Nice guy...I will make sure to do that.

I noticed when I assembled the kit that the initial tone test where I was adjusting the deviation had a very high pitch. That's what happens when you swap the 3.58Mhz for the 10Mhz resonator ;-).

I used the sample.asm program to confirm that I could decode packets. I saw the text received by TNC and it was quite a thrill to know it was ready to be used as a tracker. However, I could not get my KPC3+ to decode any of the APRS packets. Then I updated to the latest GPS-2-e programs (version E) and it began working properly. Don't forget to get the latest software as several improvements have been added since version A which included working around some problems with the way the KPC3+ decodes APRS packets. Also, the mode and option switch directions are opposite of the instructions, presumably because the toggle switches work backwards from the original slide switches.

Next week I'll be traveling on the East coast so if any of you see my packets, let me know by dropping me an email as they will be originating from the PIC-E. I've also started an information page on the PIC-E at:

http://members.aol.com/lee810/pic-e.html

If you have anything you would like to see added to the page, please send me an email.

73,

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

26. [picsig] [picsig]PIC-E and GPS-E-2 More Info

From: "Richard C. Bandla" <rbandla@voicelogix.ca>
Date: Sat, 19 Feb 2000 16:19:56 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66712-2000.02.19-15.18.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have made a very simple excel spreadsheet to help me keep track of the settings I used in GPS-E-2. Also GPS-E-2 requires the hex code for the symbol that you want to use. To simplify getting this info in a single lookup, I modified Bob Bruninga's symbol table to include the ascii/hex code. I have provided Bob a copy of this revised table and hopefully he will include it in the next APRS release.

In the meantime if you are interested in having a look at these tools you can download a zipped file from the following APRS site
http://www.qsl.net/orag/downld.html
in the middle of the page there is an ftp link called piceinfo

73.
Rick (VE3CVG/VA3RCB)

1355 Minogue Cres., Cumberland, ON, Canada K4C1B4
phone 613 833-2787 (home)   fax 613 833 3032
phone 613 833-1950 (work)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

27. [picsig] A fully functional PIC-TNC???

From: "Tj Johnston" <tjjohnston@mindspring.com>
Date: Sun, 20 Feb 2000 14:18:29 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66914-2000.02.20-13.16.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is anyone or any group currently working on a fully functional TNC made with PIC's? It seems these are very popular chips now.. and quite versatile. I would love to build my own TNC... in my own case... using these new chips. I am looking to do this for APRS and would love to

build one with multiple rs-232 inputs for GPS, RDF and such...

Unfortunately I am not up to speed on PIC's ... yet... and would hate
to re-invent the wheel.. if someone else is doing this already.

Tj Johnston, N4UYQ

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] Re: A fully functional PIC-TNC???

From: "Jerry Whetstone" <whetston@esper.com>
Date: Sun, 20 Feb 2000 14:36:41 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66918-2000.02.20-13.41.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello TJ, (and other pic'ers)

Like yourself, I am getting interested in programming pic chips, but I am a
rank novice at this point. I too would like to see some code produced that
would let one send telemetry using the packet tnc as a means of recieving
and the pic responsible for sending the telemetry. Much like the MIM module
does. I just cant afford the MIM yet and would be interested if anything has
been done on this somewhere and I have just overlooked it. This is my first
comment to the list, although I have been lurking almost a year now, and I
hope I am in line with the protocol, let me know if I am not.

Jerry Whetstone
Knoxville, Tenn.
N4IJL

-----Original Message-----
From: Tj Johnston <tjjohnston@mindspring.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Sunday, February 20, 2000 2:19 PM
Subject: [picsig] A fully functional PIC-TNC???

>Is anyone or any group currently working on a fully functional TNC
>made with PIC's? It seems these are very popular chips now.. and quite
>versatile. I would love to build my own TNC... in my own case... using
>these new chips. I am looking to do this for APRS and would love to
>build one with multiple rs-232 inputs for GPS, RDF and such...
>
>Unfortunately I am not up to speed on PIC's ... yet... and would hate
>to re-invent the wheel.. if someone else is doing this already.
>
>Tj Johnston, N4UYQ
>
>
>
>---
>You are currently subscribed to picsig as: whetston@esper.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] Re: A fully functional PIC-TNC???

From: "Byon Garrabrant" <byon@mail.com>
Date: Sun, 20 Feb 2000 12:57:40 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66927-2000.02.20-14.55.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 20 Feb 00, at 14:36, Jerry Whetstone wrote:

> Like yourself, I am getting interested in programming pic chips, but I am
> a rank novice at this point. I too would like to see some code produced
> that would let one send telemetry using the packet tnc as a means of
> recieving and the pic responsible for sending the telemetry. Much like the

> MIM module does. I just cant afford the MIM yet and would be interested if
> anything has been done on this somewhere and I have just overlooked it.
> This is my first comment to the list, although I have been lurking almost
> a year now, and I hope I am in line with the protocol, let me know if I am
> not.

Well, you are in the right place. This list was formed originally
around the development of the TAPR PIC-E, which will does
exactly what you are mentioning. There is source code available to
send position information, in ASM and C form, and also code to
send WX data, to receive packets, and to act as a digipeater.

Start by looking at http://www.tapr.org/tapr/html/pice.html and then
check out the software area at ftp://ftp.tapr.org/picsig/
I think all the authors of this software frequent this list, so feel free
to let the questions fly.

As a side note, I have been working on a modem-less MIM clone,
without telemetry, which you could build. It's not completely ready
for general consumption, but many beta testers are using it
successfully. http://www.byonics.com/tinytrak/index.html

73,
Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] Re: A fully functional PIC-TNC???

From: "Tj Johnston" <tjjohnston@mindspring.com>
Date: Sun, 20 Feb 2000 20:05:18 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66955-2000.02.20-19.04.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

My vision of the perfect APRS PIC-TNC... (FOR MOBILE USE)

1 radio port for VHF use
1 GPS rs-232 port (input only)
1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)

Features:

Receive 1200 baud UI packets via VHF and send to laptop
Collect and filter GPS input, extracing only the $GPRMC information line and
send to laptop
             (without colliding with inbound UI packets)
Collect secondary port information and send to laptop.
             (without colliding with inbound UI packets)
XMIT 1200 baud UI packets to VHFas sent by laptop
Option to XMIT 1200 baud UI position reports derived from GPS input, when
laptop not connected.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

31. [picsig] Re: A fully functional PIC-TNC???

From: Jacobtennant@aol.com
Date: Sun, 20 Feb 2000 21:53:02 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66970-2000.02.20-20.51.14--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 02/20/2000 8:08:12 PM Eastern Standard Time,
tjjohnston@mindspring.com writes:

> 1 radio port for VHF use
> 1 GPS rs-232 port (input only)
> 1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)
>

> Features:
>
> Receive 1200 baud UI packets via VHF and send to laptop
> Collect and filter GPS input, extracing only the $GPRMC information line
> (without colliding with inbound UI packets)
> Collect secondary port information and send to laptop.
> (without colliding with inbound UI packets)
> XMIT 1200 baud UI packets to VHFas sent by laptop
> Option to XMIT 1200 baud UI position reports derived from GPS input, when
> laptop not connected.

Well alot of this has been done in the TinyTrak by Byon(N6BG) that a friend of mine (EE-Prof.) and I have been beta testing for about a week now. We are having great results in creating the 1200/2200 tones out of the PIC itself, has a functional DCD holdoff, picks (no pun intended) out the $GPRMC string flawlessly. Been running one out of my car for a couple days now without a hitch.

I too am interested in a PIC-TNC system, however it appears that outside of adding more memory to the PIC's we are using now, 16F84's, or going to a higher level PIC such as the 18 series ones this idea is going to run into memory problems. Unless like you mentioned using other parts to do the tone generation. Whereas our look at it is to have the PIC do as much of the work as possible.
73's
Jacob Tennant
KB8QIR
3938.75N/07959.33W
Morgantown,WV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] Re: A fully functional PIC-TNC???

From: "Tj Johnston" <tjjohnston@mindspring.com>
Date: Mon, 21 Feb 2000 00:42:13 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-66995-2000.02.20-23.40.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have no expectations in seeing a PIC-ONLY TNC.

I see no advantage in designing the PIC to perform the same functions that a dedicated chip (such as the MAX614) does more effectively. In the few circuits that I have designed and built over the years, I tried never to "re-invent the wheel." Plus.. my mother said "Never to put all my eggs in one basket" which seems to apply to designing circuits as well.

-----Original Message-----
From: Jacobtennant@aol.com <Jacobtennant@aol.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Sunday, 20 February 2000 21:53
Subject: [picsig] Re: A fully functional PIC-TNC???

>Well alot of this has been done in the TinyTrak by Byon(N6BG) that a friend
>of mine (EE-Prof.) and I have been beta testing for about a week now. We
are
>having great results in creating the 1200/2200 tones out of the PIC itself,
>has a functional DCD holdoff, picks (no pun intended) out the $GPRMC string
>flawlessly. Been running one out of my car for a couple days now without a
>hitch.
>
>I too am interested in a PIC-TNC system, however it appears that outside of
>adding more memory to the PIC's we are using now, 16F84's, or going to a
>higher level PIC such as the 18 series ones this idea is going to run into
>memory problems. Unless like you mentioned using other parts to do the tone
>generation. Whereas our look at it is to have the PIC do as much of the
work
>as possible.
>73's
>Jacob Tennant
>KB8QIR
>3938.75N/07959.33W
>Morgantown,WV
>

>---
>You are currently subscribed to picsig as: tjjohnston@mindspring.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] Re: A fully functional PIC-TNC???

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Mon, 21 Feb 2000 01:46:51 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67016-2000.02.21-02.44.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I noticed the Aisin GPS on a few pictures on the site, but I did not notice
another PIC to do the conversion toMNEA. Does your code accept NMEA of
AISIN? I have the Aisin GPS and I would like to make this work.

Tom
----- Original Message -----
From: Byon Garrabrant <byon@mail.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Sunday, February 20, 2000 1:57 PM
Subject: [picsig] Re: A fully functional PIC-TNC???

> On 20 Feb 00, at 14:36, Jerry Whetstone wrote:
>
> > Like yourself, I am getting interested in programming pic chips, but I
am
> > a rank novice at this point. I too would like to see some code produced
> > that would let one send telemetry using the packet tnc as a means of
> > recieving and the pic responsible for sending the telemetry. Much like
the
> > MIM module does. I just cant afford the MIM yet and would be interested
if
> > anything has been done on this somewhere and I have just overlooked it.
> > This is my first comment to the list, although I have been lurking
almost
> > a year now, and I hope I am in line with the protocol, let me know if I
am
> > not.
>
> Well, you are in the right place. This list was formed originally
> around the development of the TAPR PIC-E, which will does
> exactly what you are mentioning. There is source code available to
> send position information, in ASM and C form, and also code to
> send WX data, to receive packets, and to act as a digipeater.
>
> Start by looking at http://www.tapr.org/tapr/html/pice.html and then
> check out the software area at ftp://ftp.tapr.org/picsig/
> I think all the authors of this software frequent this list, so feel free
> to let the questions fly.
>
> As a side note, I have been working on a modem-less MIM clone,
> without telemetry, which you could build. It's not completely ready
> for general consumption, but many beta testers are using it
> successfully. http://www.byonics.com/tinytrak/index.html
>
> 73,
> Byon
>
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
> ---
> You are currently subscribed to picsig as: toms@inconnect.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] Re: A fully functional PIC-TNC???

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Mon, 21 Feb 2000 01:53:04 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67017-2000.02.21-02.51.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Any possibility to generate 300 baud tones to make a cheap HF tracker?

Tom
----- Original Message -----
From: <Jacobtennant@aol.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Sunday, February 20, 2000 7:53 PM
Subject: [picsig] Re: A fully functional PIC-TNC???

> In a message dated 02/20/2000 8:08:12 PM Eastern Standard Time,
> tjjohnston@mindspring.com writes:
>
> > 1 radio port for VHF use
> > 1 GPS rs-232 port (input only)
> > 1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)
> >
> > Features:
> >
> > Receive 1200 baud UI packets via VHF and send to laptop
> > Collect and filter GPS input, extracing only the $GPRMC information
> line
> >   (without colliding with inbound UI packets)
> > Collect secondary port information and send to laptop.
> >   (without colliding with inbound UI packets)
> > XMIT 1200 baud UI packets to VHFas sent by laptop
> > Option to XMIT 1200 baud UI position reports derived from GPS input,
> when
> > laptop not connected.
>
> Well alot of this has been done in the TinyTrak by Byon(N6BG) that a
> friend
> of mine (EE-Prof.) and I have been beta testing for about a week now. We
> are
> having great results in creating the 1200/2200 tones out of the PIC
> itself,
> has a functional DCD holdoff, picks (no pun intended) out the $GPRMC
> string
> flawlessly. Been running one out of my car for a couple days now without a
> hitch.
>
> I too am interested in a PIC-TNC system, however it appears that outside
> of
> adding more memory to the PIC's we are using now, 16F84's, or going to a
> higher level PIC such as the 18 series ones this idea is going to run into
> memory problems. Unless like you mentioned using other parts to do the
> tone
> generation. Whereas our look at it is to have the PIC do as much of the
> work
> as possible.
> 73's
> Jacob Tennant
> KB8QIR
> 3938.75N/07959.33W
> Morgantown,WV
>
> ---
> You are currently subscribed to picsig as: toms@inconnect.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

35. [picsig] Re: A fully functional PIC-TNC???

From: "Rich Clemens" <clemens@wvwc.edu>
Date: Mon, 21 Feb 2000 06:45:43 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67024-2000.02.21-06.14.21--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Seems obvious to move to one of the newer PIC with more memory and still
flashable. You might also consider the 50MHz SX.

--
Richard Clemens
clemens@wvwc.edu

----- Original Message -----
From: <Jacobtennant@aol.com>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Sunday, February 20, 2000 9:53 PM
Subject: [picsig] Re: A fully functional PIC-TNC???

> In a message dated 02/20/2000 8:08:12 PM Eastern Standard Time,
> tjjohnston@mindspring.com writes:
>
> > 1 radio port for VHF use
> > 1 GPS rs-232 port (input only)
> > 1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)
> >
> > Features:
> >
> > Receive 1200 baud UI packets via VHF and send to laptop
> > Collect and filter GPS input, extracing only the $GPRMC information
line
> >   (without colliding with inbound UI packets)
> > Collect secondary port information and send to laptop.
> >   (without colliding with inbound UI packets)
> > XMIT 1200 baud UI packets to VHFas sent by laptop
> > Option to XMIT 1200 baud UI position reports derived from GPS input,
when
> > laptop not connected.
>
> Well alot of this has been done in the TinyTrak by Byon(N6BG) that a
friend
> of mine (EE-Prof.) and I have been beta testing for about a week now. We
are
> having great results in creating the 1200/2200 tones out of the PIC
itself,
> has a functional DCD holdoff, picks (no pun intended) out the $GPRMC
string
> flawlessly. Been running one out of my car for a couple days now without a
> hitch.
>
> I too am interested in a PIC-TNC system, however it appears that outside
of
> adding more memory to the PIC's we are using now, 16F84's, or going to a
> higher level PIC such as the 18 series ones this idea is going to run into
> memory problems. Unless like you mentioned using other parts to do the
tone
> generation. Whereas our look at it is to have the PIC do as much of the
work
> as possible.
> 73's
> Jacob Tennant
> KB8QIR
> 3938.75N/07959.33W
> Morgantown,WV
>
> ---
> You are currently subscribed to picsig as: clemens@wvwc.edu
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

36. [picsig] Re: A fully functional PIC-TNC???

From: "Richard C. Bandla" <rbandla@voicelogix.ca>
Date: Mon, 21 Feb 2000 07:29:33 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67025-2000.02.21-06.27.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Greetings all.

Not sure if anyone has mentioned the possibility yet but what about 2
16F84s? Seems that 2 of these would be more powerful than 1 + modem chip.
Regards.
Rick (VE3CVG)

At 06:45 2000-02-21 -0500, you wrote:
>Seems obvious to move to one of the newer PIC with more memory and still
>flashable. You might also consider the 50MHz SX.
>
>--
>Richard Clemens
>clemens@wvwc.edu
>
>
>----- Original Message -----
>From: <Jacobtennant@aol.com>
>To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>Sent: Sunday, February 20, 2000 9:53 PM
>Subject: [picsig] Re: A fully functional PIC-TNC???
>
>
>> In a message dated 02/20/2000 8:08:12 PM Eastern Standard Time,
>> tjjohnston@mindspring.com writes:
>>
>> > 1 radio port for VHF use
>> > 1 GPS rs-232 port (input only)
>> > 1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)
>> >
>> > Features:
>> >
>> > Receive 1200 baud UI packets via VHF and send to laptop
>> > Collect and filter GPS input, extracing only the $GPRMC information
>line
>> >   (without colliding with inbound UI packets)
>> > Collect secondary port information and send to laptop.
>> >   (without colliding with inbound UI packets)
>> > XMIT 1200 baud UI packets to VHFas sent by laptop
>> > Option to XMIT 1200 baud UI position reports derived from GPS input,
>when
>> > laptop not connected.
>>
>> Well alot of this has been done in the TinyTrak by Byon(N6BG) that a
>friend
>> of mine (EE-Prof.) and I have been beta testing for about a week now. We
>are
>> having great results in creating the 1200/2200 tones out of the PIC
>itself,
>> has a functional DCD holdoff, picks (no pun intended) out the $GPRMC
>string
>> flawlessly. Been running one out of my car for a couple days now without a
>> hitch.
>>
>> I too am interested in a PIC-TNC system, however it appears that outside
>of
>> adding more memory to the PIC's we are using now, 16F84's, or going to a
>> higher level PIC such as the 18 series ones this idea is going to run into
>> memory problems. Unless like you mentioned using other parts to do the
>tone
>> generation. Whereas our look at it is to have the PIC do as much of the
>work
>> as possible.
>> 73's
>> Jacob Tennant
>> KB8QIR
>> 3938.75N/07959.33W
>> Morgantown,WV
>>
>> ---
>> You are currently subscribed to picsig as: clemens@wvwc.edu
>> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>>
>
>
>---
>You are currently subscribed to picsig as: ve3cvg@rac.ca
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

>
>
1355 Minogue Cres., Cumberland, ON, Canada K4C1B4
phone 613 833-2787 (home)   fax 613 833 3032
phone 613 833-1950 (work)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

37. [picsig] Re: A fully functional PIC-TNC???

From: "Rich Clemens" <clemens@wvwc.edu>
Date: Mon, 21 Feb 2000 07:44:41 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67027-2000.02.21-06.43.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Why are we stuck on the 16F84? I know it is great, I use it all the time but
the others are just as easy to use.

--
Richard Clemens
clemens@wvwc.edu

----- Original Message -----
From: "Richard C. Bandla" <rbandla@voicelogix.ca>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Monday, February 21, 2000 7:29 AM
Subject: [picsig] Re: A fully functional PIC-TNC???

> Greetings all.
>
> Not sure if anyone has mentioned the possibility yet but what about 2
> 16F84s? Seems that 2 of these would be more powerful than 1 + modem chip.
> Regards.
> Rick (VE3CVG)
>
> At 06:45 2000-02-21 -0500, you wrote:
> >Seems obvious to move to one of the newer PIC with more memory and still
> >flashable. You might also consider the 50MHz SX.
> >
> >--
> >Richard Clemens
> >clemens@wvwc.edu
> >
> >
> >----- Original Message -----
> >From: <Jacobtennant@aol.com>
> >To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
> >Sent: Sunday, February 20, 2000 9:53 PM
> >Subject: [picsig] Re: A fully functional PIC-TNC???
> >
> >
> >> In a message dated 02/20/2000 8:08:12 PM Eastern Standard Time,
> >> tjjohnston@mindspring.com writes:
> >>
> >> > 1 radio port for VHF use
> >> > 1 GPS rs-232 port (input only)
> >> > 1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)
> >> >
> >> > Features:
> >> >
> >> > Receive 1200 baud UI packets via VHF and send to laptop
> >> > Collect and filter GPS input, extracing only the $GPRMC information
> >line
> >> >   (without colliding with inbound UI packets)
> >> > Collect secondary port information and send to laptop.
> >> >   (without colliding with inbound UI packets)
> >> > XMIT 1200 baud UI packets to VHFas sent by laptop
> >> > Option to XMIT 1200 baud UI position reports derived from GPS input,
> >when
> >> > laptop not connected.
> >>
> >> Well alot of this has been done in the TinyTrak by Byon(N6BG) that a
> >friend
> >> of mine (EE-Prof.) and I have been beta testing for about a week now.

We
> >are
> >> having great results in creating the 1200/2200 tones out of the PIC
> >itself,
> >> has a functional DCD holdoff, picks (no pun intended) out the $GPRMC
> >string
> >> flawlessly. Been running one out of my car for a couple days now
without a
> >> hitch.
> >>
> >> I too am interested in a PIC-TNC system, however it appears that
outside
> >of
> >> adding more memory to the PIC's we are using now, 16F84's, or going to
a
> >> higher level PIC such as the 18 series ones this idea is going to run
into
> >> memory problems. Unless like you mentioned using other parts to do the
> >tone
> >> generation. Whereas our look at it is to have the PIC do as much of the
> >work
> >> as possible.
> >> 73's
> >> Jacob Tennant
> >> KB8QIR
> >> 3938.75N/07959.33W
> >> Morgantown,WV
> >>
> >> ---
> >> You are currently subscribed to picsig as: clemens@wvwc.edu
> >> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> >>
> >
> >
> >---
> >You are currently subscribed to picsig as: ve3cvg@rac.ca
> >To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> >
> >
> >
> 1355 Minogue Cres., Cumberland, ON, Canada K4C1B4
> phone 613 833-2787 (home)   fax 613 833 3032
> phone 613 833-1950 (work)
>
>
> ---
> You are currently subscribed to picsig as: clemens@wvwc.edu
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

38. [picsig] Re: A fully functional PIC-TNC???

From: Laura Halliday <va3ldh@sympatico.ca>
Date: Mon, 21 Feb 2000 08:59:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67031-2000.02.21-07.53.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

When people say "TNC" some seem to be talking about modems, and others
about protocol engines. Both are possible.

The catch is memory - many protocols (e.g. KISS) require that the TNC
accumulate an entire packet on reception, validate the checksum, and
then
forward to the host if the checksum is OK. On transmit, most implemen-
tations, either by design or by default, use no flow control. So
the TNC must be able to either buffer a lot of data, or transmit the
data faster than it receives them.

Terrestrial packet uses packet lengths up to 2k, which are out of
reach unless you rig up some external memory. Satellites use 256 byte
packets which won't fit in a 16F84, but which will easily fit in
a 16F877. Which looks and feels like a 16F84 with a pituitary problem.

For general host use there isn't much point - modern personal computers

can do all the protocol and DSP stuff in software, so your modem is a
soundcard and your TNC is all in software. You can make all kinds of
interesting digital interface gadgets at very low cost with PICs, but
they wouldn't be TNCs. Perhaps we need a new word? I propose DIG:
Digital Interface Gadget.
--
Laura Halliday VA3LDH   "Laisse le vent tout emporter..."
Grid: FN03gs   - Foly/Viennet

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

39. [picsig] Re: A fully functional PIC-TNC???

From: Dave VanHorn <dvanhorn@cedar.net>
Date: Mon, 21 Feb 2000 10:12:28 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67035-2000.02.21-09.13.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>
>I see no advantage in designing the PIC to perform the same functions that a
>dedicated chip (such as the MAX614) does more effectively. In the few
>circuits that I have designed and built over the years, I tried never to
>"re-invent the wheel." Plus.. my mother said "Never to put all my eggs in
>one basket" which seems to apply to designing circuits as well.

MAX614?   The MX614 is just a modem chip, it does not implement any of the
protocol.
-----BEGIN PGP SIGNATURE-----
Version: PGP for Personal Privacy 5.5.2

iQA/AwUBOLFV24FlGDz1l6VWEQLSkQCeOKAbjkwiDFB/mqZwRwlr1UU08D0An33e
nIgZZZHnwCFUyuyCKDYH7rFV
=ccci
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] Re: A fully functional PIC-TNC???

From: Dave VanHorn <dvanhorn@cedar.net>
Date: Mon, 21 Feb 2000 10:35:38 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67038-2000.02.21-09.36.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>
>For general host use there isn't much point - modern personal computers
>can do all the protocol and DSP stuff in software, so your modem is a
>soundcard and your TNC is all in software. You can make all kinds of
>interesting digital interface gadgets at very low cost with PICs, but
>they wouldn't be TNCs. Perhaps we need a new word? I propose DIG:
>Digital Interface Gadget.

There's at least one point that can be cleanly divided, between the modem
and the TNC.
As I see it, the TNC should handle all the protocol layers, and the modem
should translate to/from audio.

Handshaking really should be implemented in a TNC, it's pretty simple, and
without it, you risk transmission/reception of packets that were good, but
got broken by the serial interface.

The TAPR TNCs (IMHO) are too complex, and they don't make a clean
distinction between the modem and the part that unwraps (and wraps) the
protocol. I like the implementation of the TNC in the kenwood HT though,
they've removed probably 90% of the commands, and yet it's still perfectly

functional.

I understand in the beginning it wasn't understood what would have to be
"tweakable", but I think after 20 years or so of experimentation, we ought
to have figured that out.

Also, if you're using a flash uC, then you can still load different
firmware sets for different tasks, which allows you to have everything
variable again, but in "sets" according to the task.

-----BEGIN PGP SIGNATURE-----
Version: PGP for Personal Privacy 5.5.2

iQA/AwUBOLFbSoFlGDz1l6VWEQL4nwCgvx2yG45Uc7UARfSIdYWandWJ1jsAoOsQ
1tFZXKKU1fvpul7PCuNAnuav
=zsEA
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] Re: A fully functional PIC-TNC???

From: Tim Salo <salo@networkcs.com>
Date: Mon, 21 Feb 2000 09:43:13 -0600 (CST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67039-2000.02.21-09.41.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Date: Mon, 21 Feb 2000 08:59:23 -0500
> From: Laura Halliday <va3ldh@sympatico.ca>
> Subject: [picsig] Re: A fully functional PIC-TNC???
>   [...]
> On transmit, most implemen-
> tations, either by design or by default, use no flow control. So
> the TNC must be able to either buffer a lot of data, or transmit the
> data faster than it receives them.
>   [...]

Few things are impossible, but implementing a TNC with only a small
amount of memory relative to the size of the packets may be more bother
than it is worth.

Note that AX.25 is a synchronous protocol. Therefore, when a TNC is
transmitting, the next byte to be transmitted must be available for
transmission as soon as the previous byte has been transmitted. If
a byte is ever late (because it hasn't been received from the host yet),
the whole AX.25 frame is lost (either because the receiver isn't able
to decode it because there is a timing gap in the data that causes the
receiver to loose synchronization or because the TNC aborted the frame).
(I would be a bit surprised if any TNCs actually transmit an HDLC abort
sequence. I would also be a bit surprised if all TNCs correctly process
an abort sequence on receive.)

One could, perhaps, try to precisely control the rate at which the
host passes data to the TNC, either by pacing the output or by using,
for example, hardware flow control, but every additional bit of memory in
the TNC would make the problem a lot easier.

Of course, the easiest approach is for the TNC to be able to put the
whole packet in memory before starting to transmit it on the air.

On the other hand, it would be fun to look at the code that somebody
wrote to transmit packets through a TNC with very little memory...

-tjs

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

42. [picsig] Re: A fully functional PIC-TNC???

From: Jacobtennant@aol.com
Date: Mon, 21 Feb 2000 11:02:01 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67041-2000.02.21-10.00.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 02/21/2000 10:39:11 AM Eastern Standard Time,
dvanhorn@cedar.net writes:

>For general host use there isn't much point - modern personal computers
>can do all the protocol and DSP stuff in software, so your modem is a
>soundcard and your TNC is all in software.

    That's fine at home, but I am looking towards a device that could be used in the car,truck,van,etc... My laptop is a simple old 286 that doesn't even have a floppy drive, let alone a sound card.

    Maybe I am just to cheap for my own good you might say, but I like the idea of experimenting to develop a PIC based replacement for the KPC-3+. Not to corner the market financially, but to make getting the most out of APRS systems without having to dump a whole lot of money into it. This is the same feelings I get from many people I talk to after giving a APRS demo.

    Along these lines I am also trying to combine a few other PIC based APRS devices into what could be called a "SUPER HAMHUD", a conglomerate of the TinyTrak,HamHud, and a PIC based demodulation of the on air packets. It seems to me that this would be the next best thing to a real laptop in the car. I have also even been looking at some of the SBC's (Single Board COmputer) available as to run DosAPRS on it with only a screen connected, as well as a TNC/PIC and a GPS setup to autoexec upon startup of my car, initialize the TNC/PIC and GPS and give me a full display capability while driving. Just without the keyboard hanging around.

73's
Jacob Tennant
KB8QIR
3938.75N/07959.33W
Morgantown,WV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

43. [picsig] Re: A fully functional PIC-TNC???

From: "Richard C. Bandla" <rbandla@voicelogix.ca>
Date: Mon, 21 Feb 2000 12:15:14 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67046-2000.02.21-11.13.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

General Comments

We use 16F84s because of
Functionality
Familiarity
Availability
Cost
(and perhaps, repeatability, belongs in here)

Yes, you can do this stuff in a PC, but I don't want to tie up my $4K resource when I can perform the function in $20 package a couple of inches square, that will run on next to no energy and mount behind my dash somewhere? The beauty of this hobby and industry is that there are many ways to accomplish the task - you get to use whatever meets your requirements.

There are abbreviated PIC digi's, etc, already designed, and underway, just browse through the archives, folks.

Regards.
Rick (VE3CVG)

At 07:44 2000-02-21 -0500, you wrote:
>Why are we stuck on the 16F84? I know it is great, I use it all the time but
>the others are just as easy to use.
>
>--
>Richard Clemens
>clemens@wvwc.edu
>
>
>----- Original Message -----
>From: "Richard C. Bandla" <rbandla@voicelogix.ca>
>To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

>Sent: Monday, February 21, 2000 7:29 AM
>Subject: [picsig] Re: A fully functional PIC-TNC???
>
>
>> Greetings all.
>>
>> Not sure if anyone has mentioned the possibility yet but what about 2
>> 16F84s? Seems that 2 of these would be more powerful than 1 + modem chip.
>> Regards.
>> Rick (VE3CVG)
>>
>> At 06:45 2000-02-21 -0500, you wrote:
>> >Seems obvious to move to one of the newer PIC with more memory and still
>> >flashable. You might also consider the 50MHz SX.
>> >
>> >--
>> >Richard Clemens
>> >clemens@wvwc.edu
>> >
>> >
>> >----- Original Message -----
>> >From: <Jacobtennant@aol.com>
>> >To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>> >Sent: Sunday, February 20, 2000 9:53 PM
>> >Subject: [picsig] Re: A fully functional PIC-TNC???
>> >
>> >
>> >> In a message dated 02/20/2000 8:08:12 PM Eastern Standard Time,
>> >> tjjohnston@mindspring.com writes:
>> >>
>> >> > 1 radio port for VHF use
>> >> > 1 GPS rs-232 port (input only)
>> >> > 1 configurable rs-232 port for (WX, RDF, or TELEMETRY) (input only)
>> >> >
>> >> > Features:
>> >> >
>> >> > Receive 1200 baud UI packets via VHF and send to laptop
>> >> > Collect and filter GPS input, extracing only the $GPRMC information
>> >line
>> >> >   (without colliding with inbound UI packets)
>> >> > Collect secondary port information and send to laptop.
>> >> >   (without colliding with inbound UI packets)
>> >> > XMIT 1200 baud UI packets to VHFas sent by laptop
>> >> > Option to XMIT 1200 baud UI position reports derived from GPS input,
>> >when
>> >> > laptop not connected.
>> >>
>> >> Well alot of this has been done in the TinyTrak by Byon(N6BG) that a
>> >friend
>> >> of mine (EE-Prof.) and I have been beta testing for about a week now.
>We
>> >are
>> >> having great results in creating the 1200/2200 tones out of the PIC
>> >itself,
>> >> has a functional DCD holdoff, picks (no pun intended) out the $GPRMC
>> >string
>> >> flawlessly. Been running one out of my car for a couple days now
>without a
>> >> hitch.
>> >>
>> >> I too am interested in a PIC-TNC system, however it appears that
>outside
>> >of
>> >> adding more memory to the PIC's we are using now, 16F84's, or going to
>a
>> >> higher level PIC such as the 18 series ones this idea is going to run
>into
>> >> memory problems. Unless like you mentioned using other parts to do the
>> >tone
>> >> generation. Whereas our look at it is to have the PIC do as much of the
>> >work
>> >> as possible.
>> >> 73's
>> >> Jacob Tennant
>> >> KB8QIR
>> >> 3938.75N/07959.33W
>> >> Morgantown,WV
>> >>
>> >> ---

>> >> You are currently subscribed to picsig as: clemens@wvwc.edu
>> >> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>> >>
>> >
>> >
>> >---
>> >You are currently subscribed to picsig as: ve3cvg@rac.ca
>> >To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>> >
>> >
>> >
>> 1355 Minogue Cres., Cumberland, ON, Canada K4C1B4
>> phone 613 833-2787 (home)   fax 613 833 3032
>> phone 613 833-1950 (work)
>>
>>
>> ---
>> You are currently subscribed to picsig as: clemens@wvwc.edu
>> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>>
>
>
>---
>You are currently subscribed to picsig as: ve3cvg@rac.ca
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
>
1355 Minogue Cres., Cumberland, ON, Canada K4C1B4
phone 613 833-2787 (home)   fax 613 833 3032
phone 613 833-1950 (work)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

44. [picsig] Re: A fully functional PIC-TNC???

From: "Byon Garrabrant" <byon@mail.com>
Date: Mon, 21 Feb 2000 09:53:30 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67050-2000.02.21-11.51.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 21 Feb 00, at 1:46, Thomas M. Schaefer wrote:

> I noticed the Aisin GPS on a few pictures on the site, but I did not notice
> another PIC to do the conversion toMNEA. Does your code accept NMEA of
> AISIN? I have the Aisin GPS and I would like to make this work.
>
> Tom
> ----- Original Message -----
> >
> > As a side note, I have been working on a modem-less MIM clone,
> > without telemetry, which you could build. It's not completely ready
> > for general consumption, but many beta testers are using it
> > successfully. http://www.byonics.com/tinytrak/index.html
> >

The device only understands NMEA-0183 $GPRMC strings. There
is a GST-2 (8-pin 672 PIC) also on the board on the devices shown
with the Aisin GPS.

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

45. [picsig] Re: A fully functional PIC-TNC???

From: Dave VanHorn <dvanhorn@cedar.net>
Date: Mon, 21 Feb 2000 13:12:57 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67051-2000.02.21-12.19.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

At 11:02 AM 2/21/2000 -0500, Jacobtennant@aol.com wrote:
>In a message dated 02/21/2000 10:39:11 AM Eastern Standard Time,
>dvanhorn@cedar.net writes:
>
> >For general host use there isn't much point - modern personal computers
> >can do all the protocol and DSP stuff in software, so your modem is a
> >soundcard and your TNC is all in software

That wasn't me saying that.

>   That's fine at home, but I am looking towards a device that could be
> used
>in the car,truck,van,etc... My laptop is a simple old 286 that doesn't even
>have a floppy drive, let alone a sound card.

I agree, and fully appreciate the value of a standalone box

>   Maybe I am just to cheap for my own good you might say, but I like the
>idea of experimenting to develop a PIC based replacement for the KPC-3+. Not
>to corner the market financially, but to make getting the most out of APRS
>systems without having to dump a whole lot of money into it. This is the same
>feelings I get from many people I talk to after giving a APRS demo.

Well, if you MUST use a pic, I perfer the Atmel AVRs. More horsepower,
flashable, less wierdness internally..(insert standard anti-pic rant here)

>   Along these lines I am also trying to combine a few other PIC based APRS
>devices into what could be called a "SUPER HAMHUD", a conglomerate of the
>TinyTrak,HamHud, and a PIC based demodulation of the on air packets.

I was thinking along these lines too. I'm working on one DF system that
will function with or without APRS, having four serial ports of it's own,
and communicating with APRS by a special protocol over one port. I've been
working on other parts of the system, but I'll be getting back to the
interfacing issues shortly.

I will be putting station posits up on the GPS display, and moving them
around if they are moving, as well as possibly interfacing to other display
units.

-----BEGIN PGP SIGNATURE-----
Version: PGP for Personal Privacy 5.5.2

iQA/AwUBOLGAKYFlGDz1l6VWEQJ8OwCfcSkohvoB3JSumAt0kTqXBRw6VTQAoK6u
noA6AW6CtILItlh2ql7o32fd
=e68D
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

46. [picsig] Re: A fully functional PIC-TNC???

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Mon, 21 Feb 2000 13:38:54 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67055-2000.02.21-12.31.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dave

I guess a few of us ATMEL appreciators are just going to have to bind
together and do our own project... and release it...

Any thoughts?

ALOHA
AH6LS

> Well, if you MUST use a pic, I perfer the Atmel AVRs. More horsepower,

> flashable, less wierdness internally..(insert standard anti-pic rant here)
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

47. [picsig] Re: A fully functional PIC-TNC???

From: Ken Mirabella <kjm@flo-bin.com>
Date: Mon, 21 Feb 2000 10:27:39 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67058-2000.02.21-12.35.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

No work today either, huh!

This is the type of inquiries and orders I get. Interesting, huh!

==========
Ken, I dumped the .doc file through "word" and the photos printed OK but it
couldn't convert some of the graphics. Is that sheet available in a
mailable
form? If so I'll send you an SASE. I've been using the keyed Radio Shack
version of the Molex that they rate at 20A (highly suspect). It works OK
but
the pin/jack quality is fairly poor as with most of their products. But
it's
convenient. I think it's time to order a sufficient quantity to start the
conversion process. By the way, what is the function of the roll pin
included with the sets?
PS. We have about two hundred members along with a communications bus and
do
a lot of contesting and DXpeditions so I think it would be very convenient
if
we just get the WWI members over to this standard.
Thanks Again, John

==========

I made him a .pdf of the product line and sent it to him. They will
probably order around 300 PP connectors and go for the cheapest price.

73, ken

----- Original Message -----
From: "Byon Garrabrant" <byon@mail.com>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Monday, February 21, 2000 9:53 AM
Subject: [picsig] Re: A fully functional PIC-TNC???

> On 21 Feb 00, at 1:46, Thomas M. Schaefer wrote:
>
> > I noticed the Aisin GPS on a few pictures on the site, but I did not
notice
> > another PIC to do the conversion toMNEA. Does your code accept NMEA of
> > AISIN? I have the Aisin GPS and I would like to make this work.
> >
> > Tom
> > ----- Original Message -----
> > >
> > > As a side note, I have been working on a modem-less MIM clone,
> > > without telemetry, which you could build. It's not completely ready
> > > for general consumption, but many beta testers are using it
> > > successfully. http://www.byonics.com/tinytrak/index.html
> > >
>
> The device only understands NMEA-0183 $GPRMC strings. There
> is a GST-2 (8-pin 672 PIC) also on the board on the devices shown
> with the Aisin GPS.
>
> Byon
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
> ---
> You are currently subscribed to picsig as: kjm@flo-bin.com

> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
[Attachment: productlist2.PDF; application/pdf; 157,490 bytes]

48. [picsig] Re: A fully functional PIC-TNC???

From: Ken Mirabella <kjm@flo-bin.com>
Date: Mon, 21 Feb 2000 10:45:32 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67059-2000.02.21-12.48.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ooopps.

Sorry about that. This was suppose to go to a private party.

Very sorry. Must check the reply button. I'm embarrassed.

73, Ken

----- Original Message -----
From: "Ken Mirabella" <kjm@flo-bin.com>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Monday, February 21, 2000 10:27 AM
Subject: [picsig] Re: A fully functional PIC-TNC???

> No work today either, huh!
>
> This is the type of inquiries and orders I get. Interesting, huh!
>
> ==========
> Ken, I dumped the .doc file through "word" and the photos printed OK but
it
> couldn't convert some of the graphics. Is that sheet available in a
> mailable
> form? If so I'll send you an SASE. I've been using the keyed Radio Shack
> version of the Molex that they rate at 20A (highly suspect). It works OK
> but
> the pin/jack quality is fairly poor as with most of their products. But
> it's
> convenient. I think it's time to order a sufficient quantity to start the
> conversion process. By the way, what is the function of the roll pin
> included with the sets?
> PS. We have about two hundred members along with a communications bus and
> do
> a lot of contesting and DXpeditions so I think it would be very convenient
> if
> we just get the WWI members over to this standard.
> Thanks Again, John
>
> ==========
>
> I made him a .pdf of the product line and sent it to him. They will
> probably order around 300 PP connectors and go for the cheapest price.
>
> 73, ken
>
>
>
> ----- Original Message -----
> From: "Byon Garrabrant" <byon@mail.com>
> To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
> Sent: Monday, February 21, 2000 9:53 AM
> Subject: [picsig] Re: A fully functional PIC-TNC???
>
>
> > On 21 Feb 00, at 1:46, Thomas M. Schaefer wrote:
> >
> > > I noticed the Aisin GPS on a few pictures on the site, but I did not
> notice
> > > another PIC to do the conversion toMNEA. Does your code accept NMEA of
> > > AISIN? I have the Aisin GPS and I would like to make this work.
> > >
> > > Tom
> > > ----- Original Message -----
> > >
> > > As a side note, I have been working on a modem-less MIM clone,
> > > without telemetry, which you could build. It's not completely ready

> > > > for general consumption, but many beta testers are using it
> > > > successfully. http://www.byonics.com/tinytrak/index.html
> > > >
> >
> > The device only understands NMEA-0183 $GPRMC strings. There
> > is a GST-2 (8-pin 672 PIC) also on the board on the devices shown
> > with the Aisin GPS.
> >
> > Byon
> > _____________________________________
> > Byon Garrabrant   N6BG   byon@mail.com
> >
> > ---
> > You are currently subscribed to picsig as: kjm@flo-bin.com
> > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> >
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

49. [picsig] Re: A fully functional PIC-TNC???

From: Dave VanHorn <dvanhorn@cedar.net>
Date: Mon, 21 Feb 2000 14:12:56 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67062-2000.02.21-13.13.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

At 01:38 PM 2/21/2000 -0500, Sadowski, Allan wrote:
>Dave
>
>I guess a few of us ATMEL appreciators are just going to have to bind
>together and do our own project... and release it...

Time's pretty scarce right at the moment, but I can contribute something..
I also have schematic and PCB tools, so I can work on hardware layer as well.

I'm trying HARD to get two of four major projects off my plate ASAP, but I
can't project when that will be yet.
-----BEGIN PGP SIGNATURE-----
Version: PGP for Personal Privacy 5.5.2

iQA/AwUBOLGOOIFlGDz1l6VWEQIYKQCfQxjI+J3EKlykzqrc79/WXlDxO30An0r7
glPzqLMS5PodZNbdHC7f9Q4w
=qauB
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

50. [picsig] Re: A fully functional PIC-TNC???

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Mon, 21 Feb 2000 13:53:52 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67075-2000.02.21-14.42.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 21 Feb 2000, Thomas M. Schaefer wrote:

> Any possibility to generate 300 baud tones to make a cheap HF tracker?

Just take the output of the existing PIC-E between the pic chip and the
modem chip and use it to key a varactor diode on a XTAL oscillator. THen
5 transistors or so of amplificaiton and you have a 50W HF tracker...

Been wanting to do this for years... :-(

Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

51. [picsig] Re: A fully functional PIC-TNC???

From: Jeff King <jeff@aerodata.net>
Date: Mon, 21 Feb 2000 16:54:51 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67101-2000.02.21-15.51.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:

> On Mon, 21 Feb 2000, Thomas M. Schaefer wrote:
>
> > Any possibility to generate 300 baud tones to make a cheap HF tracker?
>
> Just take the output of the existing PIC-E between the pic chip and the
> modem chip and use it to key a varactor diode on a XTAL oscillator. THen
> 5 transistors or so of amplificaiton and you have a 50W HF tracker..

You'll want to put some bandpass filtering between the digital output of the pic and the drive to the varactor diode. Otherwise, you'll have some serious bandwidth since a square wave will be driving the varactor. Also, you'll need a way to control the level (swing) going to the varactor as well as a DC offset.

But, should all fit within a LM324 package or close (<$1 of parts).

But I'd suggest someone take a look at the PIC PSK31 source I linked to the list here a few weeks back. GPS code could be grafted on it quite easily. I'd think a PIC based PSK31 HF tracker would be far more useful then a AX.25 mode tracker with all its attendent overhead.

73

Jeff

P.S. Here is my original posting again:

Subject: [picsig] GPL'ed PSK31 source, the next HF "APRS"?
Date: Sat, 22 Jan 2000 19:39:19 -0500
From: Jeff King <jeff@aerodata.net>
Reply-To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Organization: Aero Data Systems, Inc.
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

I ran across this the other day:

http://www.geocities.com/ae4jy/index.htm

Its a full implementation of PSK31, in Visual C++ 6.0, of a PSK31 program called WinPSK. The kicker is it includes the source.

And here is a PIC PSK31 beacon, which could easily have grafted on it some GPS decoding code. Its written in CCS "C" with some assembler. See:

http://www.ussc.com/~turner/psk_transmitter.html

I'm sure a few of you have been following with interest the experiments by Bob rebroadcasting the local VHF lans on 1200 baud 10 meter AX.25. However, as many are finding, AX.25 is ill-suited for any type of broadcast (UI frame) transmission, in particular on HF.

This might be a good extension to the concept Bob has started. Now, we will need to do some serious compression here, like dropping all the messaging/beacons and converting the standard APRS/NEMA stings to compressed format (or even smaller) but it might be doable using the QPSK mode of PSK31 (which has a limited version of FEC). I think one would need to analyze the varicode tables to see what makes the most sense.

I haven't yet done anything here, but the concept is exciting

Here is a clip from one of the web pages.

73

Jeff

>PSK31 is an amateur radio communications mode introduced by Peter Martinez, >G3PLX, that uses phase modulation
and
special character coding. It
>allows robust narrow bandwidth keyboard "Chat" type communications between two >or more stations.

>WinPSK evolved while experimenting with DSP on a PC soundcard. This program >was not intended to be a full-featured
program for serious PSK31
>use, but rather as a learning tool for those interested in the "inner workings" of a >functional PSK31 program.
This
program, it's source code, and a
>companion document "WinPSK Technical Reference Manual", should be of some use >for someone who wants to improve
upon
and create a full
>featured version.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

52. [picsig] Re: A fully functional PIC-TNC???

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Mon, 21 Feb 2000 15:17:44 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67106-2000.02.21-16.15.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks for the suggestions. What I was wondering was if I could use any
existing designs to just get the Modem tones right. I want to make a tracker
that I can plug into an already running FT100. Periodically, it would move
over in frequency to beacon out the position.

The absolute optimal way would be to check the frequency through the CAT
port, change the freq and mode to 10151, tune the antenna again through CAT,
beacon, then tune things back after it digipeats. I would just have a
lockout switch so if you were QSO, you could prevent this. I can do the
other programming, but I have this block on how to get the PIC to send the
correct 300 baud tones.

So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
send the correct 300 baud tones?

Tom NY4I
----- Original Message -----
From: "Jeff King" <jeff@aerodata.net>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Monday, February 21, 2000 2:54 PM
Subject: [picsig] Re: A fully functional PIC-TNC???

>
>
> Bob Bruninga wrote:
>
> > On Mon, 21 Feb 2000, Thomas M. Schaefer wrote:
> >
> > > Any possibility to generate 300 baud tones to make a cheap HF tracker?
> >
> > Just take the output of the existing PIC-E between the pic chip and the
> > modem chip and use it to key a varactor diode on a XTAL oscillator.
THen
> > 5 transistors or so of amplificaiton and you have a 50W HF tracker..
>
> You'll want to put some bandpass filtering between the digital output of
> the pic and the drive to the varactor diode. Otherwise, you'll have some
> serious bandwidth since a square wave will be driving the varactor. Also,
> you'll need a way to control the level (swing) going to the varactor as
> well as a DC offset.

>
> But, should all fit within a LM324 package or close (<$1 of parts).
>
> But I'd suggest someone take a look at the PIC PSK31 source I linked to
> the list here a few weeks back. GPS code could be grafted on it quite
> easily. I'd think a PIC based PSK31 HF tracker would be far more useful
> then a AX.25 mode tracker with all its attendent overhead.
>
> 73
>
> Jeff
>
> P.S. Here is my original posting again:
> ---------------------
>
> Subject: [picsig] GPL'ed PSK31 source, the next HF "APRS"?
> Date: Sat, 22 Jan 2000 19:39:19 -0500
> From: Jeff King <jeff@aerodata.net>
> Reply-To: "TAPR PIC Development Special Interest Group"
<picsig@lists.tapr.org>
> Organization: Aero Data Systems, Inc.
> To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>
>
> I ran across this the other day:
>
> http://www.geocities.com/ae4jy/index.htm
>
> Its a full implementation of PSK31, in Visual C++ 6.0, of a PSK31
> program called WinPSK. The kicker is it includes the source.
>
> And here is a PIC PSK31 beacon, which could easily have grafted
> on it some GPS decoding code. Its written in CCS "C" with some
> assembler. See:
>
> http://www.ussc.com/~turner/psk_transmitter.html
>
> I'm sure a few of you have been following with interest the experiments
> by Bob rebroadcasting the local VHF lans on 1200 baud 10 meter
> AX.25. However, as many are finding, AX.25 is ill-suited for any type
> of broadcast (UI frame) transmission, in particular on HF.
>
> This might be a good extension to the concept Bob has started. Now,
> we will need to do some serious compression here, like dropping all
> the messaging/beacons and converting the standard APRS/NEMA
> stings to compressed format (or even smaller) but it might be doable
> using the QPSK mode of PSK31 (which has a limited version of
> FEC). I think one would need to analyze the varicode tables to see
> what makes the most sense.
>
> I haven't yet done anything here, but the concept is exciting
>
> Here is a clip from one of the web pages.
>
> 73
>
> Jeff
>
> >PSK31 is an amateur radio communications mode introduced by Peter
Martinez, >G3PLX, that uses phase modulation
> and
> special character coding. It
> >allows robust narrow bandwidth keyboard "Chat" type communications
between two >or more stations.
>
> >WinPSK evolved while experimenting with DSP on a PC soundcard. This
program >was not intended to be a
> full-featured
> program for serious PSK31
> >use, but rather as a learning tool for those interested in the "inner
workings" of a >functional PSK31 program.
> This
> program, it's source code, and a
> >companion document "WinPSK Technical Reference Manual", should be of some
use >for someone who wants to improve
> upon
> and create a full
> >featured version.
>

>
>
>
>
>
> ---
> You are currently subscribed to picsig as: toms@inconnect.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

53. [picsig] Re: A fully functional PIC-TNC???

From: Jeff King <jeff@aerodata.net>
Date: Mon, 21 Feb 2000 22:27:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67164-2000.02.21-21.23.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

OK, I guess getting back to what you actually asked.

"Thomas M. Schaefer" wrote:

> Thanks for the suggestions. What I was wondering was if I could use any
> existing designs to just get the Modem tones right.

You should easily be able to change the timing in John Hansens's code and I
also suspect Byons as well. Then the only task left to do is locate a Bell 103
type modem to replace the MX614.

> The absolute optimal way would be to check the frequency through the CAT
> port, change the freq and mode to 10151, tune the antenna again through CAT,

I know (well strongly suspect) that you know 'C', so go ahead and grab the source
off the TAPR site. Assuming you can get the CAT protocol, shouldn't be much
of a problem.

> So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
> send the correct 300 baud tones?

This is likely what you are looking for: http://www.byonics.com/tinytrak/index.html

It use a 4 bit D/A to reconstruct the modem tones (4 bits from the PIC feeding to
4 resistors with different "weights"). Not sure if source code is out for it yet, but
should be fairly easy to adapt the "one chip PIC tracker" to HF.

You also can use PWM to generate the audio tones.... in fact that is how the
MIM/MIC-E does it. They use a 16C73 so it makes life alot easier.

Here is a MicroChip app note for audio tone generation using PWM:
http://www.microchip.com/Download/Appnote/Category/17CXX/Misc/00538c.pdf

Here is a ap note on R2-R and PWM D/A converters:
http://www.microchip.com/Download/Appnote/Category/16CXX/00655a.pdf

73

Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

54. [picsig] Re: A fully functional PIC-TNC???

From: "Byon Garrabrant" <byon@mail.com>
Date: Mon, 21 Feb 2000 19:55:21 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67167-2000.02.21-21.53.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 21 Feb 00, at 15:17, Thomas M. Schaefer wrote:

> So, is there any magic to convert a non-MX614 device (hey, like a PIC) to

> send the correct 300 baud tones?

I started some research today on generating 300 baud packet. I
fed to output of my MFJ1278 in HF Packet mode into my sound
card, and captured at studied the audio. I found the tones to be
2175 Hz and 2350 Hz. I also looked up 300 baud packet in the
ARRL Handbook, and it showed 4 freq pairs. One of them was Bell
103 Answer tones of 2025/2225 Hz. I'm guessing that any pair
200Hz apart centered between 2100 and 2200 Hz will work, since
on SSB you can shift the tones around. I wonder if the Bell 103
Orig tones of 1070/1270 would work?

Does anyone any further information on HF packet audio freqs?
Can anyone with a KAM or other HF TNC tell me if the manual tells
these tones. Better yet, can someone with one of these TNCs
send the audio out to their sound card and record a short UI packet
and also the calibrate tones (mark, space, and dotting)?

My plan is to generate the two tones with a 4 bit resistor ladder.
After that I try 1200 Manchester and 9600!!

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

55. [picsig] Re: A fully functional PIC-TNC???

From: Dave VanHorn <dvanhorn@cedar.net>
Date: Mon, 21 Feb 2000 23:50:40 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67179-2000.02.21-22.52.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>
>You should easily be able to change the timing in John Hansens's code and I
>also suspect Byons as well. Then the only task left to do is locate a Bell 103
>type modem to replace the MX614.

As far as generating them goes, that's easy. They are just sine waves, and
phase coherency is (A) easy and (B) good. You just use a timer to step
through a sine table, and change the rate as appropriate.

Detecting is a different matter.

Why not use the MX chip?

-----BEGIN PGP SIGNATURE-----
Version: PGP for Personal Privacy 5.5.2

iQA/AwUBOLIVoIFlGDz1l6VWEQJNjACgn/EfyAlAqa/sJb0q5VaWiWyvKvsAoOKS
C/IgoHP8BCVYgazqozp23o0R
=ThJE
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

56. [picsig] Path for PIC-E while mobile

From: Lee810@aol.com
Date: Mon, 21 Feb 2000 23:59:01 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67181-2000.02.21-22.57.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I will be taking my PIC-E mobile with me this week to the east coast. I
noticed that in Colorado, the recommended path seems to be WIDE5-5. Would
this also be a good path for PA from PHL up through the Northeast part of the
state? I'll also be traveling up through NY and into MA later in the week
too. The default path in the gps-e-2 software is RELAY, WIDE, WIDE, but I

don't think our wide digis respond to RELAY or at least it doesn't seem like
they do as I only get those packets direct.

Thanks,

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

57. [picsig] Re: A fully functional PIC-TNC???

From: Bob Nielsen <nielsen@primenet.com>
Date: Mon, 21 Feb 2000 23:15:47 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67198-2000.02.22-00.16.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The TAPR TNC-2 manual recommends using 1600 and 1800 Hz. Any two tones
spaced 200 Hz within the passband of the radio should work. As I recall
from ~30 years ago, lower tones are also commonly used for RTTY, in
order to match the characteristics of narrower I.F. filters than
typically used for voice communications.

Bob, N7XY

On Mon, Feb 21, 2000 at 07:55:21PM -0800, Byon Garrabrant wrote:
> On 21 Feb 00, at 15:17, Thomas M. Schaefer wrote:
>
> > So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
> > send the correct 300 baud tones?
>
> I started some research today on generating 300 baud packet. I
> fed to output of my MFJ1278 in HF Packet mode into my sound
> card, and captured at studied the audio. I found the tones to be
> 2175 Hz and 2350 Hz. I also looked up 300 baud packet in the
> ARRL Handbook, and it showed 4 freq pairs. One of them was Bell
> 103 Answer tones of 2025/2225 Hz. I'm guessing that any pair
> 200Hz apart centered between 2100 and 2200 Hz will work, since
> on SSB you can shift the tones around. I wonder if the Bell 103
> Orig tones of 1070/1270 would work?
>
> Does anyone any further information on HF packet audio freqs?
> Can anyone with a KAM or other HF TNC tell me if the manual tells
> these tones. Better yet, can someone with one of these TNCs
> send the audio out to their sound card and record a short UI packet
> and also the calibrate tones (mark, space, and dotting)?
>
> My plan is to generate the two tones with a 4 bit resistor ladder.
> After that I try 1200 Manchester and 9600!!
>
> Byon
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
> ---
> You are currently subscribed to picsig as: nielsen@primenet.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

--
Bob Nielsen, N7XY (RN2)   nielsen@primenet.com
Tucson, AZ DM42nh QRP-L #1985 SOC #77   http://www.primenet.com/~nielsen

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

58. [picsig] Re: A fully functional PIC-TNC???

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Tue, 22 Feb 2000 09:54:18 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67232-2000.02.22-08.54.25--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes, Bell is the definition of 300 baud APRS packet. So any 200 HZ shift
will do. But it is nice to match the tones of the receiving TNC so that
there is no Transmit/Receive offset needed...

de WB4APR, Bob

 On Mon, 21 Feb 2000, Byon
Garrabrant wrote:

> On 21 Feb 00, at 15:17, Thomas M. Schaefer wrote:
>
> > So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
> > send the correct 300 baud tones?
>
> I started some research today on generating 300 baud packet. I
> fed to output of my MFJ1278 in HF Packet mode into my sound
> card, and captured at studied the audio. I found the tones to be
> 2175 Hz and 2350 Hz. I also looked up 300 baud packet in the
> ARRL Handbook, and it showed 4 freq pairs. One of them was Bell
> 103 Answer tones of 2025/2225 Hz. I'm guessing that any pair
> 200Hz apart centered between 2100 and 2200 Hz will work, since
> on SSB you can shift the tones around. I wonder if the Bell 103
> Orig tones of 1070/1270 would work?
>
> Does anyone any further information on HF packet audio freqs?
> Can anyone with a KAM or other HF TNC tell me if the manual tells
> these tones. Better yet, can someone with one of these TNCs
> send the audio out to their sound card and record a short UI packet
> and also the calibrate tones (mark, space, and dotting)?
>
> My plan is to generate the two tones with a 4 bit resistor ladder.
> After that I try 1200 Manchester and 9600!!
>
> Byon
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
> ---
> You are currently subscribed to picsig as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

APRSdos REPLY/COMMENT:

Reply mail addr: wb4apr@amsat.org
US mail address: 115 old Farm Ct, Glen Burnie, MD 21060
See DAYTON97 HISTORY: http://web.usna.navy.mil/~bruninga/dayton.html
See Maryland APRS LIVE: http://web.usna.navy.mil/~bruninga/aprs.html
See GPS on ANY radio: http://www.tapr.org/tapr/html/mic-e.html

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

59. [picsig] Re: A fully functional PIC-TNC???

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Tue, 22 Feb 2000 09:58:57 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67233-2000.02.22-08.59.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 21 Feb 2000, Byon Garrabrant wrote:

> > So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
> > send the correct 300 baud tones?

> My plan is to generate the two tones with a 4 bit resistor ladder.
> After that I try 1200 Manchester and 9600!!

By using tones, you require a SSB transmitter. If you just FSK a varactor
diode on the XTAL at 300 baud, then you only need a cheap 5 transistor CW
transmitter.. An order of magnitude difference in cost.

de WB4APR, Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

60. [picsig] Re: Path for PIC-E while mobile

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Tue, 22 Feb 2000 10:20:03 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67239-2000.02.22-09.19.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 21 Feb 2000 Lee810@aol.com wrote:

> I will be taking my PIC-E mobile with me this week to the east coast. I
> noticed that in Colorado, the recommended path seems to be WIDE5-5. Would
> this also be a good path for PA from PHL up through the Northeast part of the
> state?

No, most digis in PA are not widen-N.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

61. [picsig] Re: picsig digest: February 21, 2000

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Tue, 22 Feb 2000 15:35:31 -0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67256-2000.02.22-11.28.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Date sent: Tue, 22 Feb 2000 00:01:51 -0600
Subject: picsig digest: February 21, 2000
To: "picsig digest recipients" <picsig@lists.tapr.org>
From: "TAPR PIC Development Special Interest Group digest" <picsig@lists.tapr.org>
Send reply to: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

>
> Subject: Re: A fully functional PIC-TNC???
> From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
> Date: Mon, 21 Feb 2000 13:38:54 -0500
> X-Message-Number: 14
>
> Dave
>
> I guess a few of us ATMEL appreciators are just going to have to bind
> together and do our own project... and release it...
>
> Any thoughts?
>
> ALOHA
> AH6LS
>
> > Well, if you MUST use a pic, I perfer the Atmel AVRs. More horsepower,
> > flashable, less wierdness internally..(insert standard anti-pic rant here)
> >
>
> -

Please count on me.

Marcelo Puhl - PY3SS
mark@plug-in.com.br

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

62. [picsig] Re: picsig digest: February 21, 2000

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Tue, 22 Feb 2000 15:48:26 -0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67260-2000.02.22-11.41.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> On 21 Feb 00, at 15:17, Thomas M. Schaefer wrote:
>
> > So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
> > send the correct 300 baud tones?
>
> I started some research today on generating 300 baud packet. I
> fed to output of my MFJ1278 in HF Packet mode into my sound
> card, and captured at studied the audio. I found the tones to be
> 2175 Hz and 2350 Hz. I also looked up 300 baud packet in the
> ARRL Handbook, and it showed 4 freq pairs. One of them was Bell
> 103 Answer tones of 2025/2225 Hz. I'm guessing that any pair
> 200Hz apart centered between 2100 and 2200 Hz will work, since
> on SSB you can shift the tones around. I wonder if the Bell 103
> Orig tones of 1070/1270 would work?
>
> Does anyone any further information on HF packet audio freqs?
> Can anyone with a KAM or other HF TNC tell me if the manual tells
> these tones. Better yet, can someone with one of these TNCs
> send the audio out to their sound card and record a short UI packet
> and also the calibrate tones (mark, space, and dotting)?
>
> My plan is to generate the two tones with a 4 bit resistor ladder.
> After that I try 1200 Manchester and 9600!!
>
> Byon
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com

Hi,

There is a mod to the good old TCM3105 to work on 300 bps HF.
I used it in the past.
The frequencies was 650 Hz and 850 Hz and it worked very fine.
Basically, the device must be "underclocked" and some pin change.

I have a GIF file with the detail, in case someone is interested.

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

63. [picsig] Re: Path for PIC-E while mobile

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Tue, 22 Feb 2000 17:46:08 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: <Lee810@aol.co>
Message-ID: <LYR6890-67368-2000.02.22-16.44.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

on 2/21/00 11:59 PM, Lee810@aol.com at Lee810@aol.com wrote:

> I will be taking my PIC-E mobile with me this week to the east coast. I
> noticed that in Colorado, the recommended path seems to be WIDE5-5. Would
> this also be a good path for PA from PHL up through the Northeast part of the
> state? I'll also be traveling up through NY and into MA later in the week
> too. The default path in the gps-e-2 software is RELAY, WIDE, WIDE, but I
> don't think our wide digis respond to RELAY or at least it doesn't seem like
> they do as I only get those packets direct.

My experience in the Northeast corridor (from VT south down to PHL area) is
that you would probably want to go with WIDE,WIDE,WIDE and skip RELAY and
the WIDEN-N. While there are quite a few WIDE-N-N capable digis along the
major N-S route there are also quite a few that aren't. The best bet is to,
if you are running Win/MacAPRS, turn on an Internet feed and check the

digipeater symbols along your route.

I am getting ready for a run to DC for a week and the map so far doesn't
look very promising for DC proper and to its West side.

--
Brian B. Riley --> http://members.macconnect.com/~brianbr
  For PGP Keys <mailto:brianbr@wulfden.org?subject=Get%20PGP%20Key>

   "If you can't believe what you read in comic books, what can
    you believe?" -- Bullwinkle J. Moose

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

64. [picsig] Re: picsig digest: February 21, 2000

From: Doug McFadden <kc7imr@orednet.org>
Date: Wed, 23 Feb 2000 13:41:27 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67598-2000.02.23-16.04.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is there a web site for the Atmel AVRs?

On Tue, 22 Feb 2000, Marcelo Puhl wrote:

> > Dave
> >
> > I guess a few of us ATMEL appreciators are just going to have to bind
> > together and do our own project... and release it...
> >
> > Any thoughts?
> >
> > ALOHA
> > AH6LS
> >
> > > Well, if you MUST use a pic, I perfer the Atmel AVRs. More horsepower,
> > > flashable, less wierdness internally..(insert standard anti-pic rant here)
> > >
> >
> > -
>
> Please count on me.
>
> Marcelo Puhl - PY3SS
> mark@plug-in.com.br
>
> Marcelo Puhl
> mark@plug-in.com.br
> --
> Get paid to surf the WEB !
> Ganhe dinheiro enquanto surfa na Internet !
> http://alladvantage.com/go.asp?refid=DTJ608
> --
>

73 de Doug

KC7IMR
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

65. [picsig] Re: A fully functional PIC-TNC???

From: Doug McFadden <kc7imr@orednet.org>
Date: Wed, 23 Feb 2000 13:32:20 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67599-2000.02.23-16.04.35--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Perusing my "MFJ-1270C/1276 TNC 2 Data Controller" manaul, in the HF Modem
section, under calibration says:

12. Adjust R106 to where the freq counter indicates 2125 Hz,+/- 2 Hz.

14. Adjust R105 to where the freq counter indicates 2295 Hz,+/- 2 Hz.

As for Bell 103 tones, why wouldn't they work? One of the best kept
secrets in this hobby was the Hays 'smart modem' 1200. (Remember the early
days?) It used a relay to sieze the phone line and an extra set of
contacts could be used to key a xmtr. It also had, in it's command set,
the ability to send cw. I kept mine, thinking "someday", just never got
around to it.

Wasn't there, or maybe still is, a co. that made pll type mod-demod chips,
I want to say 'Xar' or 'exar', not sure about spelling. Are they still
around?

On Mon, 21 Feb 2000, Byon Garrabrant wrote:

> Date: Mon, 21 Feb 2000 19:55:21 -0800
> From: Byon Garrabrant <byon@mail.com>
> Reply-To: TAPR PIC Development Special Interest Group
>   <picsig@lists.tapr.org>
> To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
> Subject: [picsig] Re: A fully functional PIC-TNC???
>
> On 21 Feb 00, at 15:17, Thomas M. Schaefer wrote:
>
> > So, is there any magic to convert a non-MX614 device (hey, like a PIC) to
> > send the correct 300 baud tones?
>
> I started some research today on generating 300 baud packet. I
> fed to output of my MFJ1278 in HF Packet mode into my sound
> card, and captured at studied the audio. I found the tones to be
> 2175 Hz and 2350 Hz. I also looked up 300 baud packet in the
> ARRL Handbook, and it showed 4 freq pairs. One of them was Bell
> 103 Answer tones of 2025/2225 Hz. I'm guessing that any pair
> 200Hz apart centered between 2100 and 2200 Hz will work, since
> on SSB you can shift the tones around. I wonder if the Bell 103
> Orig tones of 1070/1270 would work?
>
> Does anyone any further information on HF packet audio freqs?
> Can anyone with a KAM or other HF TNC tell me if the manual tells
> these tones. Better yet, can someone with one of these TNCs
> send the audio out to their sound card and record a short UI packet
> and also the calibrate tones (mark, space, and dotting)?
>
> My plan is to generate the two tones with a 4 bit resistor ladder.
> After that I try 1200 Manchester and 9600!!
>
> Byon
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
> ---
> You are currently subscribed to picsig as: kc7imr@orednet.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

73 de Doug

KC7IMR
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

66. [picsig] Re: A fully functional PIC-TNC???

From: "Lou" <lfaustini@atlantech.net>
Date: Wed, 23 Feb 2000 18:45:57 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67605-2000.02.23-17.42.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----Original Message-----
From: Thomas M. Schaefer <toms@inconnect.com>

To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Monday, February 21, 2000 3:47 AM
Subject: [picsig] Re: A fully functional PIC-TNC???

>I noticed the Aisin GPS on a few pictures on the site, but I did not notice
>another PIC to do the conversion toMNEA. Does your code accept NMEA of
>AISIN? I have the Aisin GPS and I would like to make this work.
>

  Attached you will find the code i wrote for a pic 12c672 to convert ASIN
to
nmea.. Please share it with everyone...

    ---Lou N3NRH

 pinouts:
                                                          *
;   RA0 : GPS Input   *
;   RA1 : Serial Output_to_user   *
;   RA2 : Serial Output_to_gps- wire directly to GPS-input*
;   RA3 : n/c   *
;   RA4 : lock led. (pulled to gnd when locked)   *
;   RA5 : Heartbeat led. Blinks when pic is working   *
;   *
[Attachment: Disp-3.hex; application/octet-stream; 6,908 bytes]

67. [picsig] Re: picsig digest: February 21, 2000

From: Bill All <n3kkm@kcnet.com>
Date: Wed, 23 Feb 2000 18:02:58 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67612-2000.02.23-18.01.52--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Doug McFadden wrote:
>
> Is there a web site for the Atmel AVRs?
>

Yes, http://www.atmel.com

--

Bill All N3KKM
http://www.kcnet.com/~n3kkm
Near Space Balloon Group http://www.kcnet.com/~n3kkm/nearspace.html
----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

68. [picsig] Re: A fully functional PIC-TNC???

From: Jeff King <jeff@aerodata.net>
Date: Wed, 23 Feb 2000 19:15:50 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67615-2000.02.23-18.12.08--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Doug McFadden wrote:

> Wasn't there, or maybe still is, a co. that made pll type mod-demod chips,
> I want to say 'Xar' or 'exar', not sure about spelling. Are they still
> around?

Yeap. Exar 2206 and 2211..... commodity chips and cheap. But you need
to tune them. They work quite well for packet and have a decent energy
detect in them (the next best thing to a state machine detect).

The TNC1's, TNC2's and I think still the MFJ-1270's used them

73

Jeff wb8wka

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

69. [picsig] Re: A fully functional PIC-TNC???

From: James Jefferson <jjeffers@deskmedia.com>
Date: Wed, 23 Feb 2000 19:09:17 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67621-2000.02.23-19.07.01--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>Attached you will find the code i wrote for a pic 12c672 to convert ASIN
 >to nmea.. Please share it with everyone...

What speed chip do I need, Lou? It looks like digikey has both 4 and 10MHz
versions.

-James Jefferson KB0THN

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

70. [picsig] Re: PCLINT for CCS

From: Bill Vodall <Vodall@bigsky.com>
Date: Thu, 24 Feb 2000 14:40:16 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-67801-2000.02.24-16.38.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 07:07 PM 2/10/00 -0500, you wrote:
>One of the users of the CCS webboard wrote a CCS interface for
>PCLINT. I had a chance to use it with a large project last month,
>and it really helped me find some typos that were stopping me from
>getting a good compile. Highly recommended. See:
>
>http://www.deja.com/=dnc/[ST_rn=ps]/getdoc.xp?AN=567939589
>
>
>73
>
>Jeff wb8wka

Hey Jeff,

Thanks for the posting. This looks very useful.

Bill V. WA7NWP

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

71. [picsig] PIC-E Init problems

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Sun, 27 Feb 2000 18:04:24 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-68307-2000.02.27-18.03.14--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi siggers,

I just got my PIC-e and have it assembled. I now have a problem with
getting the picprog06 software to initialize the programmer. It looks
like it is doing something - the green LED comes on dimly, but an
initialization error window pops up.

I go into SETUP|HARDWARE CHECK and do some checking.

Here are some voltages at the PIC Vdd (pin 14) and several pins of P2
under various conditions:

Conditions: J4 IN
                Before Hardware Check window check-boxes are checked.

  U1-14   -0.34v

```
  P2-3          -2.04v
  P2-4            5.5v
  P2-8          -0.63

Conditions:     J4 IN
                Vdd CheckBox checked

  U1-14         2.61v
  P2-3          12.97v
  P2-4          2.47v
  P2-8          -0.69v

Conditions:     J4 OUT
                Vdd Checkbox checked

  U1-14         4.45v
  P2-3          13.99v
  P2-4          3.10v
  P2-8          -0.69v

I may need to look at other voltage points, and pass along to the sig
before anyone can give me a clue.  I'm open for suggestions.

If I check and uncheck the Data RB7 box, the data box does nothing (Vdd
box is checked).  If I check the Clock RB6 box, then toggle the Data RB7
box then the Data box follows.  The online helps don't go into any real
detail on how to use the Hardware Check window.  Some clues on this
window's operations would be helpful.

I have searched the PIC SIG archives for help, but nothing for the
partial-word search of "init fail".  Also, I'll try to dig out the Oct
98 QST article.  But, that's packed away, and may take some "serious
digging".  Perhaps there are some clues in that article also.

Help, anyone???

Thanks.

73 - Dale.  KG5LT

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

72. [picsig] Re: PIC-E Init problems

```
From: Dale Seaburg <kg5lt@earthlink.net>
Date: Sun, 27 Feb 2000 22:50:16 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-68354-2000.02.27-22.49.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

Roger,

Just to let you know, I finally achieved success. I hate to admit it,
but I goofed when I mounted the two db-9 sockets! I reversed them - GPS
for Program. I don't know WHAT I was thinking when I placed them
originally on the board? Perhaps, I WASN'T thinking at all!

Fortunately, I had invested in one of those (expensive, ouch)
desoldering tools - the kind that you press the trigger on the gun after
the hollow tip heats and melts the solder, and swoosh the solder is
all-gone! Makes it nice so you don't tear up a plated-thru board.

As soon as I switched sockets, and resoldered, I immediately was able to
program the PIC.

The diagnostic program worked fine.

Thanks a bunch for you help, and the phone call.

73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

73. [picsig] Radiosonde Transmitters...

From: "Darryl Smith" <darryl@radio-active.net.au>
Date: Tue, 29 Feb 2000 19:58:49 +1100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-68546-2000.02.29-02.53.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

G'day All...

The great Australian Field Day was on Sunday, and I picked up some
transmitters from weather balloons..... For A$5 I got the transmitter unit
as seen on the WWW.VAILALA.COM site under RS-80. The unit has according to
the specs...

Pressure : BAROCAP® Capacitive aneroid

Temperature : THERMOCAP® Capacitive bead

Humidity : HUMICAP® Thin film capacitor

Battery - Single Use water activated...

It has a high-Q type varicap for tuning, and is approx in the 400 MHz
band...

The question is... Can I use any of this for APRS? [and does anyone else
want some?]....

Many thanks

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
EMAIL: Darryl@radio-active.net.au [www.radio-active.net.au coming soon]

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

74. [picsig] Re: Radiosonde Transmitters...

From: Doug Henry <dehenry@mb.sympatico.ca>
Date: Tue, 29 Feb 2000 11:09:45 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-68580-2000.02.29-11.09.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Greetings, I'd like a couple or more of those transmitters if possible. How can
I arrange this?

Tnx Doug Henry
Lockport, Manitoba
Canada
VE4TG

Darryl Smith wrote:

> G'day All...
>
> The great Australian Field Day was on Sunday, and I picked up some
> transmitters from weather balloons..... For A$5 I got the transmitter unit
> as seen on the WWW.VAILALA.COM site under RS-80. The unit has according to
> the specs...
>
> Pressure : BAROCAP® Capacitive aneroid
>
> Temperature : THERMOCAP® Capacitive bead
>
> Humidity : HUMICAP® Thin film capacitor
>
> Battery - Single Use water activated...
>
> It has a high-Q type varicap for tuning, and is approx in the 400 MHz
> band...
>
> The question is... Can I use any of this for APRS? [and does anyone else
> want some?]....
>
> Many thanks

>
> Darryl
> ---------
> Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
> Mobile Number 0412 929 634 [+61 4 12 929 634 International]
> EMAIL: Darryl@radio-active.net.au [www.radio-active.net.au coming soon]
>
> ---
> You are currently subscribed to picsig as: ve4tg@rac.ca
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

75. [picsig] Re: Radiosonde Transmitters...

From: INFORMATION RESTRICTED <kc7vdg@earthlink.net>
Date: Tue, 29 Feb 2000 18:41:01 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-68601-2000.02.29-12.45.17--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have dozens of this particular model, and dozens of others going back
to the late 1920s. You won't be able to use them for Amateur radio use
since they aren't in a HAM band, the frequency can't be changed enough
to do so, they drift badly, severeral hundred KCs the power output is so
low, most receiver can't pick them up, and to launch them you need
flight clearence! You CAN however remove the modulator and attach it to
an Amateur radio transmitter. If you need wiring diagrams let me know,
I have each board figured out. These were dumped on the surplus market
when the Omega GPS system was shut down.

Kurt

Darryl Smith wrote:
>
> G'day All...
>
> The great Australian Field Day was on Sunday, and I picked up some
> transmitters from weather balloons..... For A$5 I got the transmitter unit
> as seen on the WWW.VAILALA.COM site under RS-80. The unit has according to
> the specs...
>
> Pressure : BAROCAP® Capacitive aneroid
>
> Temperature : THERMOCAP® Capacitive bead
>
> Humidity : HUMICAP® Thin film capacitor
>
> Battery - Single Use water activated...
>
> It has a high-Q type varicap for tuning, and is approx in the 400 MHz
> band...
>
> The question is... Can I use any of this for APRS? [and does anyone else
> want some?]....
>
> Many thanks
>
> Darryl
> ---------
> Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
> Mobile Number 0412 929 634 [+61 4 12 929 634 International]
> EMAIL: Darryl@radio-active.net.au [www.radio-active.net.au coming soon]
>
> ---
> You are currently subscribed to picsig as: kc7vdg@earthlink.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

--
Radio Stations KC7VDG / KK7RC
Monitor Station Registry KCA6ABB
Eagle Valley, Nevada
Somewhere In DM09

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

March 2000

Original source file: picsig.0003
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0003

1. [picsig] Re: A fully functional PIC-TNC???

From: "Lou" <lfaustini@atlantech.net>
Date: Wed, 1 Mar 2000 20:27:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-68773-2000.03.01-19.23.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You need a 4 Mhz pic 12c672. I think (but i am NOT sure) that the 10MHz
cersion of the 12c672 still has a 4 MHz
rc-internal osc, so it might be okay..

  ps: here is the very latest code, it works better, and now the GPGSV
message outputs real data, not just null fields..

-----Original Message-----
From: James Jefferson <jjeffers@deskmedia.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Wednesday, February 23, 2000 8:09 PM
Subject: [picsig] Re: A fully functional PIC-TNC???

> >Attached you will find the code i wrote for a pic 12c672 to convert ASIN
> >to nmea.. Please share it with everyone...
>
>What speed chip do I need, Lou? It looks like digikey has both 4 and 10MHz
>versions.
>
>-James Jefferson KB0THN
>
>---
>You are currently subscribed to picsig as: lfaustini@atlantech.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
[Attachment: Disp-4.hex; application/octet-stream; 7,140 bytes]

2. [picsig] Radio Connection

From: "Ted McArthur" <tmac4@uswest.net>
Date: Sun, 5 Mar 2000 17:52:59
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69326-2000.03.05-17.51.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just built a PIC-E. Has een a fun project I wish they would of sent the
current assembly manual with it. I had trouble knowing what to do with the
parts left over until I went and got the manual off the WEB. I don't know
if I understand what they are talking about on the PTT jumper. for one
thing there was no 3 pin jumpoers or crimp connectors in the kit. I can't
seem to get it to key my radio I am using a handheld ICOM 208. I think I
have the wiring correct. I have tried the full range of the POT and also
some different jumper setting. with and without jp3.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] RE: Radio Connection

From: "Steven R. Bible" <n7hpr@tapr.org>
Date: Sun, 5 Mar 2000 19:24:49 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69330-2000.03.05-18.23.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ted,

I'm having a bad feeling that we might have included the wrong version
of the manual in the PIC-E kit. The version on the web page

    http://www.tapr.org/tapr/html/Fpice.html

is correct. The manual should read "Written February 1999. Rev 1, May

1999"

As for hooking up your radio, disregard the earlier manual (in fact,
throw it away), and read the instructions there on how to interface the
PIC-E to your radio. If you are still having problems, let us know.

I apologize for getting the wrong version of the manual in the kit. We
do our best to keep the kits correct. Every once in a while something
like this happens, even after our best efforts.

- Steve, N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Ted McArthur
> Sent: Sunday, March 05, 2000 5:53 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Radio Connection
>
>
> I just built a PIC-E. Has een a fun project I wish they would
> of sent the
> current assembly manual with it. I had trouble knowing what
> to do with the
> parts left over until I went and got the manual off the WEB.
> I don't know
> if I understand what they are talking about on the PTT
> jumper. for one
> thing there was no 3 pin jumpoers or crimp connectors in the
> kit. I can't
> seem to get it to key my radio I am using a handheld ICOM
> 208. I think I
> have the wiring correct. I have tried the full range of the
> POT and also
> some different jumper setting. with and without jp3.
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] PIC manual revision

From: Lee810@aol.com
Date: Sun, 5 Mar 2000 19:47:33 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69332-2000.03.05-18.46.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 3/5/00 5:26:17 PM Mountain Standard Time, n7hpr@tapr.org
writes:

> I'm having a bad feeling that we might have included the wrong version
> of the manual in the PIC-E kit. The version on the web page
>
>   http://www.tapr.org/tapr/html/Fpice.html
>
> is correct. The manual should read "Written February 1999. Rev 1, May
> 1999"

I got my PIC-E about 6 weeks ago and it had the May, 1999 revision of the
manual included with it.

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] RE: Radio Connection

From: "Ted McArthur" <tmac4@uswest.net>
Date: Sun, 5 Mar 2000 19:29:39 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69343-2000.03.05-20.29.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks I got the radio to transmit.

-----Original Message-----
From: bounce-picsig-15464@lists.tapr.org
[mailto:bounce-picsig-15464@lists.tapr.org]On Behalf Of Steven R. Bible
Sent: Sunday, March 05, 2000 5:25 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: Radio Connection

Ted,

I'm having a bad feeling that we might have included the wrong version
of the manual in the PIC-E kit. The version on the web page

    http://www.tapr.org/tapr/html/Fpice.html

is correct. The manual should read "Written February 1999. Rev 1, May
1999"

As for hooking up your radio, disregard the earlier manual (in fact,
throw it away), and read the instructions there on how to interface the
PIC-E to your radio. If you are still having problems, let us know.

I apologize for getting the wrong version of the manual in the kit. We
do our best to keep the kits correct. Every once in a while something
like this happens, even after our best efforts.

- Steve, N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Ted McArthur
> Sent: Sunday, March 05, 2000 5:53 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Radio Connection
>
>
> I just built a PIC-E. Has een a fun project I wish they would
> of sent the
> current assembly manual with it. I had trouble knowing what
> to do with the
> parts left over until I went and got the manual off the WEB.
> I don't know
> if I understand what they are talking about on the PTT
> jumper. for one
> thing there was no 3 pin jumpoers or crimp connectors in the
> kit. I can't
> seem to get it to key my radio I am using a handheld ICOM
> 208. I think I
> have the wiring correct. I have tried the full range of the
> POT and also
> some different jumper setting. with and without jp3.
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: tmac4@uswest.net
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: [PIC manual revision]

From: Roger Rockwell <wb4trz@usa.net>
Date: 5 Mar 00 19:50:39 MST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69344-2000.03.05-20.49.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I bought two at the Orlando Hamfest couple of weeks ago. They both have the
correct manual. Roger WB4TRZ

Lee810@aol.com wrote:
In a message dated 3/5/00 5:26:17 PM Mountain Standard Time, n7hpr@tapr.org
writes:

> I'm having a bad feeling that we might have included the wrong version
> of the manual in the PIC-E kit. The version on the web page
>
>   http://www.tapr.org/tapr/html/Fpice.html
>
> is correct. The manual should read "Written February 1999. Rev 1, May
> 1999"

I got my PIC-E about 6 weeks ago and it had the May, 1999 revision of the
manual included with it.

Lee Devlin, K□LEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: wb4trz@usa.net
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

_____
Get free email and a permanent address at http://www.netaddress.com/?N=1

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] RE: Radio Connection

From: "Steven R. Bible" <n7hpr@tapr.org>
Date: Sun, 5 Mar 2000 22:33:33 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69358-2000.03.05-21.32.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Lee and Roger, glad to hear that the correct version was in your
kits.

Ted, what did you find that was wrong?

- Steve, N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Ted McArthur
> Sent: Sunday, March 05, 2000 9:30 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: Radio Connection
>
>
> Thanks I got the radio to transmit.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] RE: Radio Connection

From: "Ted McArthur" <tmac4@uswest.net>
Date: Sun, 5 Mar 2000 21:59:06 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69366-2000.03.05-22.59.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Well I had the ptt jumper not in correctly then I had to jumper the resistor
then it started working.

-----Original Message-----
From: bounce-picsig-15464@lists.tapr.org
[mailto:bounce-picsig-15464@lists.tapr.org]On Behalf Of Steven R. Bible
Sent: Sunday, March 05, 2000 8:34 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: Radio Connection

Thanks Lee and Roger, glad to hear that the correct version was in your
kits.

Ted, what did you find that was wrong?

- Steve, N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Ted McArthur
> Sent: Sunday, March 05, 2000 9:30 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: Radio Connection
>
>
> Thanks I got the radio to transmit.

You are currently subscribed to picsig as: tmac4@uswest.net
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] PIC-E and Visor

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Mon, 06 Mar 2000 00:28:53 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69387-2000.03.06-00.28.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

PIC-E siggers,

I made a small change to my unit to accomodate the Visor (PalmPilot
look-alike). Change resistor R13 from 10k to 2.2k or there abouts.
Also, insert the JP1 jumper. Connect the Visor to the GPS db9. The R13
and JP1 gives +5v to pin 4 of the db9 which allows the RS232 level
translator chip in the Visor cradle to do its thing (charge pump
get-me-started voltage). This change should not affect the Tripmate,
when it is plugged into the GPS port.

I'm using the pic_palm program put together by Mike, N0QBH.

73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Tracker

From: "Ted McArthur" <tmac4@uswest.net>
Date: Tue, 7 Mar 2000 21:12:33
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-69818-2000.03.07-21.11.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just finished building a PIC-E and I put in the GPS-E-2 software I want
to use ut as a tracker only. I see as default path it has RELAY,WIDE,WIDE
is that a good path for a tracer. I can here it transmitting with another
radio but if its working its not making it to an I-gate because I can't see
it on the internet. Or is there another program I shoould be using for a
tracker.

You are currently subscribed to picsig as: lyris.picsig@tapr.org

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] --->MAVIN GPS converter <-----

From: "Lou" <lfaustini@atlantech.net>
Date: Thu, 9 Mar 2000 22:40:09 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70187-2000.03.09-21.36.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hey guys!- here is my pic code to have a 12c672
convert the mavin GPS code to NMEA sentences.
it dose GPGLL GPGSA GPGSV and GPRMC.
output is 4800 baud, tested and working with
Street Atlas, and Visual GPS. GSA and GSV
output real sat data, not null fields.
 It uses the internal 4mhz RC osc, and I have tried
it at temperature extreems, with no probs.

 Here are the pin outs, PLEASE SHARE and enjoy..
fell free to post this everywhere,   I would really
like to see it put to good use, As I have spent many
hours on it!

```
;                                                               *
;       Port Configurations :                                   *
;                                                               *
;       RA0 : GPS Input                                         *
;       RA1 : Serial Output_to_user  (HOOK TO A MAX 233 ETC..
*
;       RA2 : Serial Output_to_gps- wire directly to GPS-input (dont forget
to disconnect the  other cpu!!)*
;       RA3 : n/c                                               *
;       RA4 : lock led. (pulled to gnd when locked)             *
;       RA5 : Heartbeat led. Blinks when pic is working         *
;                                                               *
;***************************************************************
;       processor pic 12c67x                                    *
;       code protection OFF                                     *
;       power up timer enabled                                  *
;       WDT enabled                                             *
;       INTERNAL (4MHz) oscillator                              *
```

[Attachment: Disp-4.hex; application/octet-stream; 7,140 bytes]

12. [picsig] GPS Connection

From: "Ted McArthur" <tmac4@uswest.net>
Date: Fri, 10 Mar 2000 10:8:51
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70264-2000.03.10-10.07.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm a little confussed if i monitor the Packet that my pic-e sends using
the GPS-e-2 I get KB&PAB-15>L@@3,,RELAY,WIDE,WIDE:<<UI>>:
'RF□-21b/ something like that My GPS is set at 4800 NEMA. do I have to
change the baud rate on the the pic-e to match the GPS if so how. I have
one person telling me that he can read the packets with his program. not
sure if he is using street atlas or winaprs. i am using winaprs and it
never shows up a a Icom or isn't ever put in the database.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Re: GPS Connection

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 10 Mar 2000 11:15:15 -0800 (PST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70293-2000.03.10-13.14.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 10 Mar 2000, Ted McArthur wrote:

> I'm a little confussed if i monitor the Packet that my pic-e sends using
> the GPS-e-2 I get KB&PAB-15>L@@3,,RELAY,WIDE,WIDE:<<UI>>:
> 'RF¿-21b/ something like that My GPS is set at 4800 NEMA. do I have to
> change the baud rate on the the pic-e to match the GPS if so how. I have
> one person telling me that he can read the packets with his program. not
> sure if he is using street atlas or winaprs. i am using winaprs and it
> never shows up a a Icom or isn't ever put in the database.

Looks suspiciously like a parity or word-length problem to me. Look
at your dumb terminal program and try 7/8 bits and Odd/Even/None parity.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: GPS-E-2E questions

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Sun, 12 Mar 2000 12:26:25 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-70644-2000.03.12-12.26.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,

Thanks for the reply. I guess being 50% wrong ain't bad. ;-) I will
copy the SIG on this, because it might be of interest to others, too. I
tend to forget to do that at times.

I should have guessed that you used the second character's (i.e. the
right-arrow in '/>') hex value. I guess I was a little slow at the
switch.

BTW, I ran the cfg program, programmed the PIC, but I don't see any
Activity led blink. I see the Valid led come on for about a second when
power is applied, but no matter where I turn the volume control on the
HT, I don't see the Activity led wink. Is it supposed to blink with any
noise? I assume you are not trying to decode incoming stuff, just look
for presence of a signal. Is that correct?

I did load the PalmPilot packet viewer by Mike (N0QBH). It used the
led's a little differently, but the Valid led seemed to wink when it saw
noise.

Also, when using the Packet Viewer program, I noticed that the MX614 was
VERY sensitive on the volume control setting. Too much valume would
over-drive it. I had to barely crack the volume open on my HTX202 to
get packets to decode. Guess I need to put in a resistor voltage
divider to match the MX614 better. Any comments?

And, one more item. When I "read" the PIC back after programming it
with the GPS-E-3e, I get a file that is bigger than the one with which I
programmed. Is that normal? I was going to do a file compare to make
sure the programming took effect, but the DOS COMP program pronnouced
that they were different because of the size difference - DUH! Guess
I'll have to write my own file-compare program...

Thanks again.

73 - Dale. KG5LT

John Hansen wrote:
>
>
> Here is the symbols table and their hex equivalents:
>
> Sym. Hex   Primary Table   Alternate Table
>
> !   21   Police, Sheriff
> EMERGENCY (!)
> "   22   reserved (had been rain)   reserved
>
snip...

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Re: GPS-E-2E questions

From: John Hansen <john@hansen.net>
Date: Sun, 12 Mar 2000 13:36:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70647-2000.03.12-12.39.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>BTW, I ran the cfg program, programmed the PIC, but I don't see any
>Activity led blink. I see the Valid led come on for about a second when
>power is applied, but no matter where I turn the volume control on the
>HT, I don't see the Activity led wink. Is it supposed to blink with any
>noise? I assume you are not trying to decode incoming stuff, just look
>for presence of a signal. Is that correct?

The activity light is not driven off the PIC, so it's behavior should be
the same regardless of what programming is in the PIC. Take a look at the
schematic and you'll see that this light is driven off the energy detect
pin on the 614. So even if you pull the PIC completely out of it's socket,
this light should still react to noise from the receiver. It does not key
off data. If you turn down the squelch and give it a little volume the
light should come on solidly.

>I did load the PalmPilot packet viewer by Mike (N0QBH). It used the
>led's a little differently, but the Valid led seemed to wink when it saw
>noise.
>
>Also, when using the Packet Viewer program, I noticed that the MX614 was
>VERY sensitive on the volume control setting. Too much valume would
>over-drive it. I had to barely crack the volume open on my HTX202 to
>get packets to decode. Guess I need to put in a resistor voltage
>divider to match the MX614 better. Any comments?

No, I have not noticed that. In my experiments it has seemed to me that
the MX614 is pretty indifferent to a wide range of signal levels. I'm
wondering if there is a wiring error in the audio input circuit or whether
perhaps there is a problem with your 614.

>And, one more item. When I "read" the PIC back after programming it
>with the GPS-E-3e, I get a file that is bigger than the one with which I
>programmed. Is that normal? I was going to do a file compare to make
>sure the programming took effect, but the DOS COMP program pronnouced
>that they were different because of the size difference - DUH! Guess
>I'll have to write my own file-compare program...

I must confess I've never tried this and don't know why this might be
happening. It seems to me that the file should be identical.... assuming
you are comparing it with output.hex and not gpse.hex. But I may be
missing something obvious here... I've not tried it. Do you have another
PIC programmer other than the one that came with the PIC-E. I might try
that and see what happens. If you don't have one and would like to have
one, send me a self address stamped padded envelop and I'll mail one out to
you.

73, John W2FS

>Thanks again.
>
>73 - Dale. KG5LT
>
>
>John Hansen wrote:
> >
> >
> > Here is the symbols table and their hex equivalents:
> >
> > Sym. Hex   Primary Table   Alternate Table
> >
> > !   21   Police, Sheriff
> > EMERGENCY (!)
> > "   22   reserved (had been rain)   reserved
> >

>snip...

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] More questions on gps-e-2e

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Sun, 12 Mar 2000 23:39:56 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-70715-2000.03.12-23.39.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,

You were so right about the Activity led: driven by the MX614. But, it does go to B3, so it could be driven by the PIC, too, I suppose.

It seems the more I play with this, the more wierd it gets. I have loaded the diagnostics to make sure I'm not going nuts. Yep, everything appears to work. Now, it's time to try to adjust the Deviation. Hmmmm, can't seem to key up the HTX202. Check voltages. Key line seems a bit high (0.8v). Why the need for D7? Yeah, I see it acts as a switch when the Mic PTT goes low so D6 doesn't conduct through D10. But, D7 has too much voltage drop. So, I sub a Schottky diode (40v 1a) and now the line drops to 0.4v, and the HTX202 keys up. So far so good. We're making progress.

But, when I listen in on my scanner (which has the old TAPR deviation meter installed), it doesn't sound too pretty. But the waveforms look OK coming out of the MX614. The pot doesn't seem to do a thing. Deviation approximately 3.2-3.5kc no matter where I put the pot until I get to the very low end. Then frequency of the tones goes up until it stops modulating. Wierd!

Looking at the output of the pot I see very little difference in output as I turn it up. The manual says to adjust for about 850mv, if no other means of measuring the deviation is available. Can't even get close to 85mv let along 850mv! The MX614 just barely puts out 850mv max, even with no radio hooked up. And with a 2-to-1 voltage drop (R20-V1), 425mv is the best I could expect.

So, I guess I leave the deviation where it is. It is reasonable, but I'm not satisfied that I can't seem to control it better.

Download the gps-e-2e and hook up the GPS (Tripmate). This time I have an outboard DB9 adapter, so I can view the tripmate output with a port on my PC, as it feeds the PIC-E board. I turn on the PIC-E. The Valid led lites for about a second and goes out. Hmmm, can't seem to get the Activity led to lite. Now what! Now matter what I do, it doesn't lite. Seems that the det line from the MX614 is held low. Signals from the speaker out of the HT at the MX614 input look good. BTW I changed R9 from a 10k to a 100k and now I have much better dynamic range of my volume control from the HTX202.

Suddenly the Activity led lites. What did I do? (I didn't do anything!) Just sitting there watching it when suddenly the led lites... And, I can control with the squelch.

But no Valid lite for the GPS. It now has A in the GPRMC sentence. So, I cycle power to the PIC-E without cycling the GPS, and this time the Valid led lites up for one second, then flashes off then right back on as it detects that the GPS is good (I think that's how your code works).

But, when I cycle power to the GPS, the Valid led stays lit. Huh?? If I cycle power to the PIC-E, then the Valid led goes out. It never goes on when the V changes to an A in the GPRMC sentence.

I have scanned your code, John. I think I see what should be happening, but I could be wrong. Been down the *wrong* path before. :-) If I'm right, the Valid led should follow the A/V of the GPRMC sentence.

One other note. The switches seem to be backwards. Is "vox" TRUE when the option switch is closed or open? Is the "config" TRUE when the mode switch is open or closed? I'm not sure. There was one time when I flipped the Option switch to the right and the Auto mode seemed to kick

in. Quite the opposite of your docs.

This has got to be one of the strangest things I've run into. The
Palmpilot Viewer seems to work well at receiving packets when that
program is loaded. The diagnostics seem to work, except for the
deviation setting. And, it appears that maybe the gps-e-2e works,
sorta. The PTT does come on, even without the Valid led lit. I have
swapped both MX614 and 'F84s. Same Same

I'm kinda at a loss as to whats going on. I have inspected the board
for solder bridges. Found what I thought might have been a bad solder
joint on R10, but nothing seems to work completely correctly with your
program. It sorta works, but sometimes it doesn't seem to work right.
Like the Twilight Zone ;-)

I may still spend some time with the file compare program to see if I'm
missing something, or the PIC-programming is not functioning like it
should. Who knows!

I'll CC this to the sig. Perhaps someone else has had the same
experience, John.

Thanks for your help and suggestions so far.

73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] Re: GPS-E-2E questions

From: Kelly J Kohls <kkohls@juno.com>
Date: Sun, 12 Mar 2000 19:52:39 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70737-2000.03.13-00.08.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Greetings all!

I think I can help with this question.......

> >And, one more item. When I "read" the PIC back after programming it
> >with the GPS-E-3e, I get a file that is bigger than the one with which
I
> >programmed. Is that normal?

Yes. The hex file from the output of the assembler (MPLAB) only contains
information for memory locations that your code actually occupies.
However, when you tell MPLAB to read a PIC, it's reading the entire
memory space of the chip. The "default" instruction ADDLW 0 (I think
this is the correct instruction) is programmed into all memory locations
that your code didn't occupy. I've run into this same situation myself.
Took me awhile to figure out what was going on.

73,

Kelly Kohls, N5TLE
Dallas, TX
Email: kkohls@juno.com OR n5tle@qsl.net OR n5tle@arrl.net
Homepage: http://www.qsl.net/n5tle/

_____
YOU'RE PAYING TOO MUCH FOR THE INTERNET!
Juno now offers FREE Internet Access!
Try it today - there's no risk! For your FREE software, visit:
http://dl.www.juno.com/get/tagj.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] Re: More questions on gps-e-2e

From: Lee810@aol.com
Date: Mon, 13 Mar 2000 01:09:37 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70738-2000.03.13-00.09.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 3/12/00 10:43:36 PM Mountain Standard Time,
kg5lt@earthlink.net writes:

> One other note. The switches seem to be backwards. Is "vox" TRUE when
> the option switch is closed or open? Is the "config" TRUE when the mode
> switch is open or closed? I'm not sure. There was one time when I
> flipped the Option switch to the right and the Auto mode seemed to kick
> in. Quite the opposite of your docs.

The switches do work backwards from the documentation. I think this occurred
when they changed from slide switches to toggle switches which work opposite
of each other.

I will make a point of adding this to a page I'm setting up for the pic-e at:

http://members.aol.com/lee810/pic-e.html

73,

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: More questions on gps-e-2e

From: Lee810@aol.com
Date: Mon, 13 Mar 2000 01:54:28 EST
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-70747-2000.03.13-00.53.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 3/12/00 10:43:36 PM Mountain Standard Time,
kg5lt@earthlink.net writes:

> But no Valid lite for the GPS. It now has A in the GPRMC sentence. So,
> I cycle power to the PIC-E without cycling the GPS, and this time the
> Valid led lites up for one second, then flashes off then right back on
> as it detects that the GPS is good (I think that's how your code works).

I use a tripmate with my pic-e. I find that the pic-e will flash the valid
LED for one second during power up no matter what. It generally takes a
while to come back on again since my GPS is powered from inside the Pic-e by
applying power to pin 9 of the GPS connector. (I also have the wire from pin
9 connected to the Vcc inside the tripmate). A few seconds after powering up
the pic-e, it will beacon with whatever the GPS coordinates are sent to it
provided it's in automatic mode.

The tripmate has a problem with being powered from 5V and that is that it
will have more trouble locking on to satellites and is likely to continue to
provide the coordinates of the last place it got a good lock. I think it can
do this indefinitely all while sending the characters that indicate it's a
good reading. I am thinking of using a secondary regulator to increase the
voltage to 6V for the GPS which is what it's expecting.

I am not completely sure how the 'busy' LED works, except that unless I use
the squelch on the radio, it stays on which means it won't beacon. It does
not appear to use any kind of software carrier detect.

73,

Lee Devlin, KØLEE (K0LEE)
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] 1-wire WS

From: Ron Walther <rascal@azstarnet.com>
Date: Tue, 14 Mar 2000 14:31:57 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71054-2000.03.14-15.29.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hey Folks;

Has a pic been developed for the 1 wire weather station
as yet..??..

73, Ron -- W7AI

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] Re: More questions on gps-e-2e

From: John Hansen <john@hansen.net>
Date: Tue, 14 Mar 2000 19:21:43 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-71067-2000.03.14-18.24.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale:

I can answer some of your questions, but I'm not sure about the
rest.

>But, when I listen in on my scanner (which has the old TAPR deviation
>meter installed), it doesn't sound too pretty. But the waveforms look
>OK coming out of the MX614. The pot doesn't seem to do a thing.
>Deviation approximately 3.2-3.5kc no matter where I put the pot until I
>get to the very low end. Then frequency of the tones goes up until it
>stops modulating. Wierd!

I can think of two possibilities here. One is that there is an
intermittent connection somewhere around your MX614 (or alternatively a
problem with the chip itself...though this seems unlikely since it does
seem to be working... just not predictably). The other potential problem
is an impedence matching problem. I ran into this when I tried to
interface a PIC-E to one of those 2 watt Kantronics xmtr board
kits. Fortunately someone with some RF knowledge was able to help me
modify the xmtr circuit so it works. If it appears to work ok with no xmtr
attached, but doesn't work properly when their is an xmtr, I'd suspect this.

>Download the gps-e-2e and hook up the GPS (Tripmate). This time I have
>an outboard DB9 adapter, so I can view the tripmate output with a port
>on my PC, as it feeds the PIC-E board. I turn on the PIC-E. The Valid
>led lites for about a second and goes out. Hmmm, can't seem to get the
>Activity led to lite. Now what! Now matter what I do, it doesn't
>lite. Seems that the det line from the MX614 is held low. Signals
>from the speaker out of the HT at the MX614 input look good. BTW I
>changed R9 from a 10k to a 100k and now I have much better dynamic range
>of my volume control from the HTX202.
>
>Suddenly the Activity led lites. What did I do? (I didn't do
>anything!) Just sitting there watching it when suddenly the led
>lites... And, I can control with the squelch.

In experimenting with the MX614, I have run into problems with the DET
circuit in some designs. Sometimes when I build up a design on a
breadboard, the DET always stays high, no matter what I do. In one case I
was able to fix it by eliminating the capacitor hooked to pin 9. However,
I think that this is due to board layout. I've never had this problem with
the PIC-E, nor have I heard of anyone else having it. Furthermore, it's
never shows up as an intermittent problem. It either works or it
doesn't. So I don't think that this is where your difficulty
lies. Instead, I would reheat the solder connections, make sure the chip
is properly seated in the socket and look for the usual kinds of causes of
intermittent problems.

>But no Valid lite for the GPS. It now has A in the GPRMC sentence. So,
>I cycle power to the PIC-E without cycling the GPS, and this time the
>Valid led lites up for one second, then flashes off then right back on
>as it detects that the GPS is good (I think that's how your code works).

Yes, that's what it is supposed to do

>But, when I cycle power to the GPS, the Valid led stays lit. Huh??

Actually it is supposed to do this too. The current code only checks to see if the GPS is valid when it is about to transmit. So if you cycle the power to the GPS and wait until it is about to transmit the next time, the light will go out. I probably should change this behavior, but it doesn't effect the actual performance of the device so I haven't bothered.

> If
>I cycle power to the PIC-E, then the Valid led goes out. It never goes
>on when the V changes to an A in the GPRMC sentence.

This is the same behavior as above. It only checks to see whether it is supposed to turn on the valid light when it is about to transmit.

>One other note. The switches seem to be backwards. Is "vox" TRUE when
>the option switch is closed or open? Is the "config" TRUE when the mode
>switch is open or closed? I'm not sure. There was one time when I
>flipped the Option switch to the right and the Auto mode seemed to kick
>in. Quite the opposite of your docs.

I think someone else addressed this. I don't actually have a production model PIC-E. I have the pre-production prototype that has the slide switches.

>This has got to be one of the strangest things I've run into. The
>Palmpilot Viewer seems to work well at receiving packets when that
>program is loaded. The diagnostics seem to work, except for the
>deviation setting. And, it appears that maybe the gps-e-2e works,
>sorta. The PTT does come on, even without the Valid led lit. I have
>swapped both MX614 and 'F84s. Same Same

This is the way the code is supposed to work as well. It should transmit, even with invalid data, when it is receiving data from the GPS. I did this because the APRS folks asked me to do it this way. Apparently APRS Dos is able to distinguish between valid and not valid packets. I think the theory here was that even if the unit lost its GPS lock it would continue to send the last position.

>I'm kinda at a loss as to whats going on. I have inspected the board
>for solder bridges. Found what I thought might have been a bad solder
>joint on R10, but nothing seems to work completely correctly with your
>program. It sorta works, but sometimes it doesn't seem to work right.
>Like the Twilight Zone ;-)

It sure does sound like an intermittent problem, though doesn't it?

>I may still spend some time with the file compare program to see if I'm
>missing something, or the PIC-programming is not functioning like it
>should.

That's a possibility too.   Anyway, I hope that with these notes you can cross off a number of these items as "problems" and it will help you focus on the things that really don't seem to be working correctly. It looks to me like the only real problems you have here involve the MX614... that the DET isn't working properly and that it's audio output isn't what you expect. I'd focus on looking at the connections in the vicinity of this chip and on whether there is a problem with the chip itself (or perhaps an undervoltage power supply?)

Let me know if I can provide any additional assistance.

73, John

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Re: 1-wire WS

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 14 Mar 2000 19:39:26 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71070-2000.03.14-18.38.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/14/00 4:31 PM Ron Walther (rascal@azstarnet.com) wrote:

>
>Has a pic been developed for the 1 wire weather station
>as yet..??..
>
There is a TAPR kit in Beta now...

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] Re: 1-wire WS

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 14 Mar 2000 21:47:24 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71085-2000.03.14-20.46.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/14/00 7:39 PM Steve Dimse (k4hg@tapr.org) wrote:

>There is a TAPR kit in Beta now...
>
OK, you all are right, I should have posted the URL. You can stop filling
my email box now!!!

http://ourworld.compuserve.com/homepages/wmbeals/

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] GPS-E-2e Success

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Tue, 14 Mar 2000 21:58:36 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-71096-2000.03.14-21.59.01--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi John and the sig,

Well, I was determined to fix this "thing" or bust. I took both chips
out and proceeded to resolder every connect - well nearly every one, as
you had suggested. Then I washed the flux off with alcohol and rinsed
with hot water (I can hear the cries of "Oh No!"). Dried very
thoroughly.

Then, I plugged both chips in and downloaded the diagnostics. Made sure
that the Activity LED worked correctly - it did. Then made sure that
the MX614 was puting out correctly during xmit. It was. Over 1v p-p at
pin 7. Made sure the pot was working. It was.

Then, I hooked up the HT. Did not have a dummy-load handy, so I just
put it on a different frequency and the rubber-ducky. Mistake (as I
found out later). When I keyed up the PIC-E, the waveform was
distorted. Hey, what's going on. Went to top of D7. Hmmm, distorted
signal like a square wave that is FM'd. Then backed up to pin 1 (RA2) if
the PIC. Still distorted, but diminished. Then it dawns on me. RF
into the PIC-E.

So, I decide to put HT on outside antenna. Yep, that was it. Now, the
signal is clear and sounds a whole lot better on the scanner/Deviation
Meter. Now, I can adjust the pot for proper Deviation. Wow! almost
home free.

Download the GPS-E-2e and hook up GPS. This time I took the time to
look at your software with more than a cursory review. Yep, now I see
why the Valid LED doesn't come on right away when the V changes to an A
in the GPRMC sentence. My mistake! Hmmm, that "path" seems to be well

trodden, huh? ;-)

Now, the unit is working. After I xmit the Valid LED lites.

One thing I don't like with the HTX202 is that the Activity LED doesn't
always extinguish when the signal disappears. It's as if the squelch
hysteresis isn't working correctly.

On another note I am using the 6B symbol, a TRUCK. But it shows up on
the Internet in winAPRS as a red dot. I captured the string as seen by
winAPRS and it is being messed up somewhere along the way to an IGate.
I don't have any way at the moment to view directly, the actual BT
transmitted. Perhaps, after I get another radio hooked up, I'll be able
to figure that one out.

Thanks John, and others that sent along suggestions. I appreciated the
help. It's been a while since I've done any serious H/W
troubleshooting, and I can tell I'm rusty...

73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] NMEA string from Magellan 2000 XL

From: "Samuel R. Barker" <srbarker@chgw.com>
Date: Tue, 14 Mar 2000 22:56:46
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71109-2000.03.14-22.55.55--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've just completed my first PIC-E, and after just a little trial and
error, it's up and running, and accepting programming. I've programmed it
with the GPS-E-2 software, and it operates as expected with one exception.

Although the 2000 Xl outputs GGA and RMC sentences, and I've tried both the
'SV6' and 'F' versions of the GPS-E software with JP2 and JP1 configured in
(I think) every possible combination, the PIC-E won't output a proper
location string. I've double checked the operation of the GPS unit by
connecting it to my PicoPacket and checking the ltext string for a properly
formatted string. Here's what ltext looks like on the TNC:

$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35

So I know the GPS is putting out something intelligible, but monitoring
packets from the Pic-E shows something like the folling string being sent:

```
WTYYY-9>TSSUPR,RELAY,WIDE,WIDE:`,>C1 >/
                                ^^^^
```

I'm assuming that the text that I underscored here is where the location
string should be. The text that ends up in this space varies from 2 to 6
characters, and usually contains a letter, number, and special character
(some examples are H1,q H15' F15' D1?y), which sort of looks like
untranslated hex maybe, but it's hard to say. I did try changing the baud
rate on the GPS, but the Pic-E doesn't see the GPS unless it's set to 4800
baud.

I'm also curious about the text emediately after my callsign (TSSUPR), I've
noticed that it varies, would like to get a little education on that
one...

So, is it a problem with my GPS, the PIC programming, the construction of
the board, me, or a combination of all of the above?

Any help? Thanks,

Sam, W7YYY (ex KE6ILR)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

26. [picsig] Re: NMEA string from Magellan 2000 XL

From: John Hansen <john@hansen.net>
Date: Wed, 15 Mar 2000 07:24:42 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-71196-2000.03.15-06.27.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Why do you think that this is not a proper location string? The only
thing that looks clearly wrong to me is the callsign of WTYYY-9. Could it
be that you misentered this in the configuration? Other than that it
looks about right. Bear in mind, this unit will transmit the MIC-E
compressed format, not clear text.
See the documentation on the MIC-E protocol on the TAPR web page for more
info on what the individual characters in the compressed format mean.
That text after your callsign is part of the location data.

John W2FS

At 10:56 PM 3/14/00 +0000, you wrote:
>I've just completed my first PIC-E, and after just a little trial and
>error, it's up and running, and accepting programming. I've programmed it
>with the GPS-E-2 software, and it operates as expected with one exception.
>
>Although the 2000 Xl outputs GGA and RMC sentences, and I've tried both the
>'SV6' and 'F' versions of the GPS-E software with JP2 and JP1 configured in
>(I think) every possible combination, the PIC-E won't output a proper
>location string. I've double checked the operation of the GPS unit by
>connecting it to my PicoPacket and checking the ltext string for a properly
>formatted string. Here's what ltext looks like on the TNC:
>
>$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35
>
>So I know the GPS is putting out something intelligible, but monitoring
>packets from the Pic-E shows something like the folling string being sent:
>
>WTYYY-9>TSSUPR,RELAY,WIDE,WIDE:`,>C1 >/
>   ^^^^
>
>I'm assuming that the text that I underscored here is where the location
>string should be. The text that ends up in this space varies from 2 to 6
>characters, and usually contains a letter, number, and special character
>(some examples are H1,q H15' F15' D1?y), which sort of looks like
>untranslated hex maybe, but it's hard to say. I did try changing the baud
>rate on the GPS, but the Pic-E doesn't see the GPS unless it's set to 4800
>baud.
>
>I'm also curious about the text emediately after my callsign (TSSUPR), I've
>noticed that it varies, would like to get a little education on that
>one...
>
>So, is it a problem with my GPS, the PIC programming, the construction of
>the board, me, or a combination of all of the above?
>
>Any help? Thanks,
>
>Sam, W7YYY (ex KE6ILR)
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

27. [picsig] Re: NMEA string from Magellan 2000 XL

From: Ian Wade <Ian.Wade@care4free.net>
Date: Wed, 15 Mar 2000 13:15:29 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71206-2000.03.15-07.17.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-71109-2000.03.14-22.55.55--Ian.Wade#care4free.net@list
s.tapr.org>, Samuel R. Barker <srbarker@chgw.com> writes
>

This is *not* a valid GGA sentence:

>$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35
              ^^^   ^^^   ^^^^
              AAA   BBB   CCCC

AAA: The first data field should be UTC in hhmmss format, without decimal
point. ".87" crept in here somehow.

BBB: It looks like a comma is missing here; i.e. it should read 1,04
(meaning a valid plot from 4 satellites).

CCC: mmmm is not a valid geoidal height. There should also be two commas
after that.

>, but monitoring
>packets from the Pic-E shows something like the folling string being sent:
>
>WTYYY-9>TSSUPR,RELAY,WIDE,WIDE:`,>C1 >/
>   ^^^^
>
>I'm assuming that the text that I underscored here is where the location
>string should be.

There should always be exactly 9 characters after the colon:

Char 1:   ` means current GPS report

Char 2:   contains the encoded longitude (degrees)

Char 3:   contains the encoded longitude (minutes)

Char 4:   contains the encoded longitude (hundredths of minutes)

Chars 5-7: contain the encoded speed and course

Char 8:   > is the "car" symbol

Char 9:   / means the Primary Symbol Table

Problem is, chars 2, 4 and 7 may be unprintable ASCII. Depending on the
program you're using to look at them, these characters may appear as black
blobs or triangles, or they may not appear at all (making the string look
shorter than it really is).

As it happens, the decoded Mic-E position in your example turns out to be
43 deg 35.02 mins N (which matches the GGA string) and
116 deg 34.39 mins W (which doesn't quite match).

So I think your PIC-E is probably working correctly -- you just aren't
seeing all the characters in the Information field.

>I'm also curious about the text emediately after my callsign (TSSUPR), I've
>noticed that it varies, would like to get a little education on that
>one...

That is the encoded latitude, plus a message code -- all described in the
APRS Protocol Specification, at http://www.tapr.org/tapr/html/Faprswg.html

>
>So, is it a problem with my GPS, the PIC programming, the construction of
>the board, me, or a combination of all of the above?
>

The GGA sentence isn't right, the PIC-E looks OK. You just need to use a
program that will display all 9 text characters.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+--+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
+--+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] Re: NMEA string from Magellan 2000 XL

From: Doug Bade <doug@ohioaprs.net>
Date: Wed, 15 Mar 2000 14:01:57 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71219-2000.03.15-08.01.08--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

well for one thing, the sv6 version requires inverted ttl data, not rs232 flipped data.. it is made for connection to the oem board which has no rs232 driver, so stick with F version.. as for the packet forming, MIC-E compresses the lat lon position into the destination field and to the data field. that is why it is so short. that is what mic e protocol is all about. view it received by aprs and see if it is decoded properly, that will tell you if all is ok.. doug

At 10:56 PM 3/14/00 +0000, you wrote:
>I've just completed my first PIC-E, and after just a little trial and
>error, it's up and running, and accepting programming. I've programmed it
>with the GPS-E-2 software, and it operates as expected with one exception.
>
>Although the 2000 Xl outputs GGA and RMC sentences, and I've tried both the
>'SV6' and 'F' versions of the GPS-E software with JP2 and JP1 configured in
>(I think) every possible combination, the PIC-E won't output a proper
>location string. I've double checked the operation of the GPS unit by
>connecting it to my PicoPacket and checking the ltext string for a properly
>formatted string. Here's what ltext looks like on the TNC:
>
>$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35
>
>So I know the GPS is putting out something intelligible, but monitoring
>packets from the Pic-E shows something like the folling string being sent:
>
>WTYYY-9>TSSUPR,RELAY,WIDE,WIDE:`,>C1 >/
>   ^^^^
>
>I'm assuming that the text that I underscored here is where the location
>string should be. The text that ends up in this space varies from 2 to 6
>characters, and usually contains a letter, number, and special character
>(some examples are H1,q H15' F15' D1?y), which sort of looks like
>untranslated hex maybe, but it's hard to say. I did try changing the baud
>rate on the GPS, but the Pic-E doesn't see the GPS unless it's set to 4800
>baud.
>
>I'm also curious about the text emediately after my callsign (TSSUPR), I've
>noticed that it varies, would like to get a little education on that
>one...
>
>So, is it a problem with my GPS, the PIC programming, the construction of
>the board, me, or a combination of all of the above?
>
>Any help? Thanks,
>
>Sam, W7YYY (ex KE6ILR)
>
>---
>You are currently subscribed to picsig as: doug@clecom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] Re: NMEA string from Magellan 2000 XL

From: "Warren A Merkel" <austin@magicnet.net>
Date: Wed, 15 Mar 2000 09:37:12 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: <picsig@lists.tapr.org>
Message-ID: <LYR6890-71224-2000.03.15-08.36.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> In article
> <LYR14796-71109-2000.03.14-22.55.55--Ian.Wade#care4free.net@list
> s.tapr.org>, Samuel R. Barker <srbarker@chgw.com> writes >
>

> This is *not* a valid GGA sentence:
>
> >$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35
>   ^^^   ^^^   ^^^^
>   AAA   BBB   CCCC
>
> AAA: The first data field should be UTC in hhmmss format, without
> decimal point. ".87" crept in here somehow.

Sorry Wade, but the decimal point time format IS valid!   The
Motorola Encore XT, 6 channel gps units spit the time out in this
format too:)

For my LCD display project, I had to write code that looks for that
decimal to adjust the algorithm to correctly parse these strings--
with or without the decimal seconds.

Warren A. Merkel
kd4zdd@amsat.org
Orlando, FL

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] Re: NMEA string from Magellan 2000 XL

From: Ian Wade <Ian.Wade@care4free.net>
Date: Wed, 15 Mar 2000 14:57:46 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71230-2000.03.15-09.01.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-71224-2000.03.15-08.36.04--Ian.Wade#care4free.net@l
ists.tapr.org>, Warren A Merkel <austin@magicnet.net> writes
>
>Sorry Wade, but the decimal point time format IS valid!   The
>Motorola Encore XT, 6 channel gps units spit the time out in this
>format too:)
>

I stand corrected! I was referring to the NMEA Version 2.0 spec here --
is that out of date?

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

31. [picsig] Re: NMEA string from Magellan 2000 XL

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Wed, 15 Mar 2000 10:17:54 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71234-2000.03.15-09.17.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 15 Mar 2000, Warren A Merkel wrote:

> > This is *not* a valid GGA sentence:
> >
> > >$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35
> >   ^^^   ^^^   ^^^^
> >   AAA   BBB   CCCC
> >
> > AAA: The first data field should be UTC in hhmmss format, without
> > decimal point. ".87" crept in here somehow.
>
> Sorry Wade, but the decimal point time format IS valid!   The

> Motorola Encore XT, 6 channel gps units spit the time out in this
> format too:)

Yep, its ambiguous in the NMEA spec, but we had to re-do the MIM and I
think that Kenwood also had to re-do their early prototypes to account
for this... Just shows that a spec is only a spec... :-(

Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] Re: NMEA string from Magellan 2000 XL

From: "Warren A Merkel" <austin@magicnet.net>
Date: Wed, 15 Mar 2000 10:20:19 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71235-2000.03.15-09.19.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> <LYR14796-71224-2000.03.15-08.36.04--Ian.Wade#care4free.net@l
> ists.tapr.org>, Warren A Merkel <austin@magicnet.net> writes > >Sorry
> Wade, but the decimal point time format IS valid!   The >Motorola
> Encore XT, 6 channel gps units spit the time out in this >format
> too:) >
>
> I stand corrected! I was referring to the NMEA Version 2.0 spec here
> -- is that out of date?
>
> 73
> Ian, G3NRW
> Technical Editor, APRS Protocol Specification

That is a good question Wade. I suspect it is actually an older
"implementation" and not really in the current "spec" . Possibly
Version 1.x.   I don't have the actual NMEA specification to verify
this.

The current Garmin models do not include the decimal notation.

Unfortunately, "spec" or not, we programmers have to crunch on
what is in the commercial market! Headaches for all.

Warren Merkel
Custom Micro Systems
warren@clientprofiles.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] Re: NMEA string from Magellan 2000 XL

From: Samuel Barker <srbarker@chgw.com>
Date: Wed, 15 Mar 2000 08:41:47 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71240-2000.03.15-09.41.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks for all the help! I didn't even think about receiving it with APRS
software, thinking that the string wasn't valid to begin with!

There were a few typos in the text string in my posting that happened while
transcribing it into email. The call sign is in fact W7YYY, and the string
of "M's" are actually supposed to be commas.

Thanks again,

Samuel, W7YYY (ex KE6ILR)

 -----Original Message-----
From: bounce-picsig-15657@lists.tapr.org
[mailto:bounce-picsig-15657@lists.tapr.org] On Behalf Of Bob Bruninga
Sent: Wednesday, March 15, 2000 8:18 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] Re: NMEA string from Magellan 2000 XL

On Wed, 15 Mar 2000, Warren A Merkel wrote:

> > This is *not* a valid GGA sentence:
> >
> > >$GPGGA, 023008.87,4335.0217,N,11613.4140,W,104,1.8,00926,M,mmmm*35
> >   ^^^   ^^^   ^^^^
> >   AAA   BBB   CCCC
> >
> > AAA: The first data field should be UTC in hhmmss format, without
> > decimal point. ".87" crept in here somehow.
>
> Sorry Wade, but the decimal point time format IS valid!   The
> Motorola Encore XT, 6 channel gps units spit the time out in this
> format too:)

Yep, its ambiguous in the NMEA spec, but we had to re-do the MIM and I
think that Kenwood also had to re-do their early prototypes to account
for this... Just shows that a spec is only a spec... :-(

Bob

You are currently subscribed to picsig as: srbarker@chgw.com
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

**********NOTICE**********
DO NOT read, copy or disseminate this
communication unless you are the intended addressee.
This e-mail communication contains confidential
and/or privileged information intended only for the
addressee. If you have received this communication
in error, please call us (collect) immediately at
(208) 344-7811 and ask to speak to the sender. Also,
please e-mail the sender to notify him/her immediately
that you have received the communication in error.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] PIC-E 2? was Re: 1-wire WS

From: Jeff King <jeff@aerodata.net>
Date: Thu, 16 Mar 2000 13:40:35 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71492-2000.03.16-12.38.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On the subject of beta's, whats the status of the 16F877 "PIC-E 2" kit
TAPR(?) is doing? I've seen some references to a KISS TNC being
developed for this, but would like to hear a little bit more about the
hardware....

-Jeff

Steve Dimse wrote:

> On 3/14/00 4:31 PM Ron Walther (rascal@azstarnet.com) wrote:
>
> > >Has a pic been developed for the 1 wire weather station
> > >as yet..??..
> >
> > There is a TAPR kit in Beta now...
>
> Steve K4HG
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

35. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: John Hansen <john@hansen.net>
Date: Thu, 16 Mar 2000 14:07:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71493-2000.03.16-12.53.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/html

At 01:40 PM 3/16/00 -0500, you wrote:

On the subject of beta's, whats the status of
the 16F877 "PIC-E 2" kit

TAPR(?) is doing? I've seen some references to a KISS TNC
being

developed for this, but would like to hear a little bit more about
the

hardware....

-Jeff

FWIW Jeff, I'm nearing completion of a 1200 baud KISS TNC. I should
finish up in the next couple of weeks. It will not be based on the
PIC-E, mainly because I'm using the USART feature of the PIC so I need
something on the order of a 16C63 or 16F873. I'm doing development
on a 16F877, but don't expect to use that chip in the final design.
There's no particular advantage to using the flash part in this project
since a KISS TNC requires no permanent storage of data (no callsign,
etc). I will probably end up doing is as a construction article for
QST.

One of the things I'm attempting to do in conjunction with this project
is to make a list of software applications that support KISS. I
know that WinAPRS now does, as do my HamWeb and UITerm programs. If
anyone has any information about others (Wisp doesn't apply here because
it needs either 9600 baud or PSK) I'd love to have the information.

I really think it may be the case that the world has already produced all
the 1200 baud TNC's it will ever need (from here on out all that is
needed is redistribution), but doing this project is an essential step
toward my longer term goal of doing a cheap 9600 baud full duplex
satellite TNC. It will be interesting to see if there is any
interest in the 1200 baud version!

John

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

36. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: Jeff King <jeff@aerodata.net>
Date: Thu, 16 Mar 2000 14:59:28 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71495-2000.03.16-13.56.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

>
> FWIW Jeff, I'm nearing completion of a 1200 baud KISS TNC.

Yeap, I saw your questions on the MIT PICLIST, and your file name you
had in your post was KISS.HEX.   Kinda figured... :-)

> I should finish up in the next couple of weeks. It will not be based on the PIC-E, mainly because I'm
 using the USART
> feature of the PIC

I know there was some talk of doing a follow-up to the PIC-E (PIC-E 22) some time ago,
this would have been based on the 16F87x series of parts. I apparently incorrectly assumed your project
 was a subset of
this project. I stand corrected.

> One of the things I'm attempting to do in conjunction with this project is to make a list of software applications
> that support KISS.

Lets see (from memory):
NOS (both Linux and DOS versions), needs multiple frames
MSYS PBBS, needs multiple frame
G8BPQ Netrom node (also other PBBS'es through this), needs multiple frames
APRS-DIGI (Wes Johnston's)
APRSMON (Directly at one time, now through Linux stack)
APRSD

> I really think it may be the case that the world has already produced all the 1200 baud TNC's it will ever need (from
> here on out all that is needed is redistribution),

Not really. What is missing is a full function, open source TNC using modern components.
While I think your just doing "KISS", put some pads on the PCB for a ramtron chip or
something. Ideally, at least 16k of ram or more. I don't think you need to aim for full
network switch, but being able to do more then one frame might be useful plus the
ability to do some custom special software.

> but doing this project is an essential step toward my longer term goal of doing a cheap 9600 baud full duplex
> satellite TNC.

No doubt if will be a good first cut, plus also give you a larger beta audience to fish out any
problems before moving on to the 9600baud tnc.

Regards,

Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

37. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: Bob Nielsen <nielsen@primenet.com>
Date: Thu, 16 Mar 2000 17:07:15 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71539-2000.03.16-18.06.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, Mar 16, 2000 at 02:07:01PM -0500, John Hansen wrote:

(mutt won't quote html email, sorry)

Anyway, there are several linux apps which can use KISS via the kernel,
such as xastir and VK3SB's extensions to aprsd (which he has submitted
to Dale, but have not been officially incorporated).

There are still some backwards areas (such as Tucson of all places)
which still predominantly or exclusively use 1200 baud.

Bob

--
Bob Nielsen, N7XY (RN2)   nielsen@primenet.com
Tucson, AZ DM42nh QRP-L #1985 SOC #77   http://www.primenet.com/~nielsen

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

38. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Thu, 16 Mar 2000 20:07:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71546-2000.03.16-19.06.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

on 3/16/00 2:07 PM, John Hansen at john@hansen.net wrote:

At 01:40 PM 3/16/00 -0500, you wrote:
On the subject of beta's, whats the status of the 16F877 "PIC-E 2" kit

TAPR(?) is doing? I've seen some references to a KISS TNC being
developed for this, but would like to hear a little bit more about the
hardware....

-Jeff

FWIW Jeff, I'm nearing completion of a 1200 baud KISS TNC. I should finish
up in the next couple of weeks. It will not be based on the PIC-E, mainly
because I'm using the USART feature of the PIC so I need something on the
order of a 16C63 or 16F873. I'm doing development on a 16F877, but don't
expect to use that chip in the final design. There's no particular advantage
to using the flash part in this project since a KISS TNC requires no
permanent storage of data (no callsign, etc). I will probably end up doing
is as a construction article for QST.

One of the things I'm attempting to do in conjunction with this project is
to make a list of software applications that support KISS. I know that
WinAPRS now does, as do my HamWeb and UITerm programs. If anyone has any
information about others (Wisp doesn't apply here because it needs either
9600 baud or PSK) I'd love to have the information.

I really think it may be the case that the world has already produced all
the 1200 baud TNC's it will ever need (from here on out all that is needed
is redistribution), but doing this project is an essential step toward my
longer term goal of doing a cheap 9600 baud full duplex satellite TNC. It
will be interesting to see if there is any interest in the 1200 baud
version!

How difficult is it to add Multi-drop KISS to the KISS software. If you can
do this, you could take several of this and a cheap <$150 DOS in ROM based
board (like the T Systems stuff - <http:/www.t-systems.com>) and run a BPQ
multi port node/aprs digipeater using Stealth digi - for trivial power
consumption and minimal costs.

--
Brian B. Riley --> http://members.macconnect.com/~brianbr
For PGP Keys <mailto:brianbr@together.net?subject=Get%20PGP%20Key>

"When in
doubt, Attack!". Gen. G. S. Patton

39. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: John Hansen <john@hansen.net>
Date: Thu, 16 Mar 2000 21:46:08 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71564-2000.03.16-20.49.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm not familiar with Multi-drop KISS. Can you tell me what it is and what
it does, or point me the direction of some documentation. I'm currently
working from
the Chepponis/Karn docs.

Thanks,   John W2FS

At 08:07 PM 3/16/00 -0500, you wrote:

>>How difficult is it to add Multi-drop KISS to the KISS software. If you
>>can do this, you could take several of this and a cheap <$150 DOS in ROM
>>based board (like the T Systems stuff - <http:/www.t-systems.com>) and
>>run a BPQ multi port node/aprs digipeater using Stealth digi - for
>>trivial power consumption and minimal costs.
>>
>>--
>>Brian B. Riley --> http://members.macconnect.com/~brianbr
>>For PGP Keys <mailto:brianbr@together.net?subject=Get%20PGP%20Key>
>>
>>"When in
>>doubt, Attack!". Gen. G. S. Patton

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Thu, 16 Mar 2000 22:12:46 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Phil karn, ka9q" <karn@ka9q.ampr.org>
Message-ID: <LYR6890-71571-2000.03.16-21.12.25--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

on 3/16/00 9:46 PM, John Hansen at john@hansen.net wrote:

> I'm not familiar with Multi-drop KISS. Can you tell me what it is and what
> it does, or point me the direction of some documentation. I'm currently
> working from
> the Chepponis/Karn docs.
>
> Thanks,   John W2FS
>
> At 08:07 PM 3/16/00 -0500, you wrote:
>
>>> How difficult is it to add Multi-drop KISS to the KISS software. If you
>>> can do this, you could take several of this and a cheap <$150 DOS in ROM
>>> based board (like the T Systems stuff - <http:/www.t-systems.com>) and
>>> run a BPQ multi port node/aprs digipeater using Stealth digi - for
>>> trivial power consumption and minimal costs.
>>>

 Multi-Drop KISS is an enhanced KISS where each TNC has a one byte
designator 0x10, 0x20, 0x30, through 0x80. Then they all sit on a 'buss'
where they all have their RxD tied together with the TxD from the PC serial
port, then the TNcs have their TxDs diode ORed to the PC RxD. In essence its
a "polled KISS" , nothing gets sent unless that TNC is polled. I would think
that the additional code is hardly more than a few dozen bytes. It first
appeared in G8BPQ (John Wiseman) BPQ Node code. But it is supported by NET
and NOS as well as recent Kantronics TNCs, I am not sure where the spec is,
but it would be worth looking into. My best guess is that the Linux, NET or
NOS guys would have it or at least where to look for it. Phil Karn should
probably know ...

--
Brian B. Riley --> http://members.macconnect.com/~brianbr
 For PGP Keys <mailto:brianbr@wulfden.org?subject=Get%20PGP%20Key>

 "Bacon and eggs: A days work for a chicken; a lifetime commitment for a
pig"

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: John Hansen <john@hansen.net>
Date: Thu, 16 Mar 2000 23:06:52 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71577-2000.03.16-22.09.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Aha! I'll bet that's what the following language is referring to in the
KISS spec:

To distinguish between command and data frames on the host/TNC link, the first
byte of each asynchronous frame between host and TNC is a ``type'' indicator.
This type indicator byte is broken into two 4-bit nibbles so that the
low-order nibble indicates the command number (given in the table below) and
the high-order nibble indicates the port number for that particular command.
In systems with only one HDLC port, it is by definition Port 0. In multi-port
TNCs, the upper 4 bits of the type indicator byte can specify one of up to
sixteen ports.

I've been using this byte only to distinguish when data was coming or
going. However if this is the mechanism by which "multi-drop" is implemented,
  the only thing that would need to be added would be to get the KISS TNC
to filter all data except the one that matched it's own port (and adding
the proper port specifier to data sent from the TNC to the
computer). Implementing that would be pretty trivial, except one would
have to give some thought to how to teach the TNC what it's port number
is. Assuming the chip is a one time programmable, this would involve
finding a way to store and change this data.   One easy way to do this
would be with jumpers, another would be to have the data stored in RAM (I'm
using outboard RAM to support reasonably long packets).

Thanks for the tip, I'll try to put it in. If you run across anything else
that indicates whether the assumption I've made here is correct, please
send it by me.

Thanks,

John W2FS

At 10:12 PM 3/16/00 -0500, you wrote:

> Multi-Drop KISS is an enhanced KISS where each TNC has a one byte
>designator 0x10, 0x20, 0x30, through 0x80. Then they all sit on a 'buss'
>where they all have their RxD tied together with the TxD from the PC serial
>port, then the TNCs have their TxDs diode ORed to the PC RxD. In essence its
>a "polled KISS" , nothing gets sent unless that TNC is polled. I would think
>that the additional code is hardly more than a few dozen bytes. It first
>appeared in G8BPQ (John Wiseman) BPQ Node code. But it is supported by NET
>and NOS as well as recent Kantronics TNCs, I am not sure where the spec is,
>but it would be worth looking into. My best guess is that the Linux, NET or
>NOS guys would have it or at least where to look for it. Phil Karn should
>probably know ...
>
>--
>Brian B. Riley --> http://members.macconnect.com/~brianbr
> For PGP Keys <mailto:brianbr@wulfden.org?subject=Get%20PGP%20Key>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

42. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: Jeff King <jeff@aerodata.net>
Date: Thu, 16 Mar 2000 23:20:44 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71579-2000.03.16-22.18.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> I'm not familiar with Multi-drop KISS. Can you tell me what it is and what
> it does, or point me the direction of some documentation. I'm currently
> working from
> the Chepponis/Karn docs.

KISS has come a long way since then. Mostly the Europeans have refined
it into something called "6-pack". But almost all U.S. software supports
multidrop, and infact, it was part of the Kantronics TNC's (for multiport).
Here are some links:

http://www.kantronics.com/kiss.htm

>From the 10th CNC proceedings:
Multi-Drop KISS Operation
by Karl Medcalf, WK5M
      Abstract: John Wiseman (G8PBQ) has developed a multi-drop KISS protocol, allowing several TNCs to
be connected to
a single serial I/O port while operating KISS mode.

BPQ software (which has some doc files) can be found at:
ftp://ftp.ucsd.edu/hamradio/packet/g8bpq/

JNOS software can be found at:
ftp://ftp.ucsd.edu/hamradio/packet/tcpip/jnos/
and source code is included. I do know this supports multidrop
as I have used it before.

And last, here is some info on "6PACK" which is supposed to be a
next generation version of KISS that removed most of the disadvantages
of KISS. It is quite popular in Europe:
http://www.ife.ee.ethz.ch/~sailer/ham/6pack.pdf

Good luck

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

43. [picsig] Re: PicE diagnostic software

From: Mark Cheavens <mcheavens@usa.net>
Date: Sat, 18 Mar 2000 09:48:23 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-71942-2000.03.18-18.04.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Byon and others,

While I might be able to learn how to change the code, I do not feel
comfortable doing it!
What I am fighting is a PIC-E that will not work consistently. My MFJ 1270
TNC with a fresh tune will decode about 50% of the packets transmitted, and
my Pico will decode NONE of them until they have been digi-peated. I have
tried it on multiple radios (all that work with my other TNC's). Deviation
has been adjusted and changed on my service monitor from between 2-4.5Khz.
Best result were realized when set to 3.5. I built two other PIC-E's so
that I can try to figure out the problem, but have not had time to hook
them up to a radio yet.

I will pass this on to the remailer as well.

Mark
KC5EVE
At 11:20 PM 03/16/2000 -0800, you wrote:
>On 10 Mar 00, at 11:39, Mark Cheavens wrote:
>
> > Byon,
> > After fighting a problem with a PicE I found an interesting change that
> > would enhance the Diagnostic software you wrote. This would not be
> meant to
> > replace your current version (since it is still the best for overall
> > deviation adjustment) but would be used for cking individual tone and tone
> > purity. Currently It is configured as follows:
> > Mode Switch left - Off
> > Mode Switch right - Toggle tones at 1200 bps and assert PTT
> >
> > Option Switch left - Off
> > Option Switch right - light VALID LED
> >
> > My change would be this:
> > ----------------------
> > Mode Switch left - Off
> > Option Switch left - Off
> > Option Switch right - light VALID LED
> >
> > Mode Switch right - Turn on single tone and assert PTT
> > Option Switch left - Low tone (1200)
> > Option Switch right - High tone (2200)
> >
> > Comments?
> >
>
>Hi Mark,
>
>   I don't know how important it would be to check tone purity, but it
>should be an doable change. If you do not feel you can change the
>code, I would be happy to do it and send it to you.
>
>Thanks for the comment.
>
>Byon
>
>_____________________________________
> Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

44. [picsig] Re: PicE diagnostic software

From: "Steven R. Bible" <srbible@gate.net>
Date: Sat, 18 Mar 2000 19:18:21 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71948-2000.03.18-18.17.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mark,

Are you sure you are using the latest code from the ftp site
ftp://ftp/tapr.org/picsig/software?

- Steve N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Mark Cheavens
> Sent: Saturday, March 18, 2000 12:48 PM
> To: TAPR PIC Development Special Interest Group
> Cc: picsig@lists.tapr.org
> Subject: [picsig] Re: PicE diagnostic software
>
>
> Byon and others,
>
> While I might be able to learn how to change the code, I do not feel
> comfortable doing it!
> What I am fighting is a PIC-E that will not work consistently.
> My MFJ 1270
> TNC with a fresh tune will decode about 50% of the packets
> transmitted, and
> my Pico will decode NONE of them until they have been digi-peated. I have
> tried it on multiple radios (all that work with my other TNC's).
> Deviation
> has been adjusted and changed on my service monitor from between
> 2-4.5Khz.
> Best result were realized when set to 3.5. I built two other PIC-E's so
> that I can try to figure out the problem, but have not had time to hook
> them up to a radio yet.
>
> I will pass this on to the remailer as well.
>
> Mark
> KC5EVE
> At 11:20 PM 03/16/2000 -0800, you wrote:
> >On 10 Mar 00, at 11:39, Mark Cheavens wrote:
> >
> > > Byon,
> > > After fighting a problem with a PicE I found an interesting
> change that
> > > would enhance the Diagnostic software you wrote. This would not be
> > meant to
> > > replace your current version (since it is still the best for overall
> > > deviation adjustment) but would be used for cking individual
> tone and tone
> > > purity. Currently It is configured as follows:
> > > Mode Switch left - Off
> > > Mode Switch right - Toggle tones at 1200 bps and assert PTT
> > >
> > > Option Switch left - Off
> > > Option Switch right - light VALID LED
> > >
> > > My change would be this:
> > > ----------------------
> > > Mode Switch left - Off
> > > Option Switch left - Off
> > > Option Switch right - light VALID LED
> > >
> > > Mode Switch right - Turn on single tone and assert PTT
> > > Option Switch left - Low tone (1200)
> > > Option Switch right - High tone (2200)
> > >
> > > Comments?
> > >
> >
> >Hi Mark,
> >

> >   I don't know how important it would be to check tone purity, but it
> >should be an doable change. If you do not feel you can change the
> >code, I would be happy to do it and send it to you.
> >
> >Thanks for the comment.
> >
> >Byon
> >
> >_____________________________________
> > Byon Garrabrant   N6BG   byon@mail.com
>
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

45. [picsig] New PicE diagnostic software

From: "Byon Garrabrant" <byon@mail.com>
Date: Sat, 18 Mar 2000 17:53:15 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-71959-2000.03.18-19.53.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi PICers,

  After the suggestions of KC5EVE, I decided to improve the PIC-E
diagnostic program. The new file, PICEDIA2.ZIP, has just been
uploaded to the FTP site. (Steve B, please copy over to software)

  The new software now adds tests for serial I/O, and sends
individual packet tones. The description below is from the
picedia2.txt file. I believe my PIC-E's switches are reversed from
most others, so I put the opposite direction in the description. I
hope it is right.

73,
Byon

---

picedia2 is a small diagnostic program for the TAPR PIC-E.
The program tests the MX614 modem chip sending, radio PTT,
switch reading, serial sending and receiving, and Valid LED.
Serial is 4800 baud N81. Be sure JP2 is in normal mode to
test serial reception. The four test modes are:

MODE 1: MODE SWITCH OFF (right) OPTION SWITCH OFF (right)
Valid LED ON
PTT OFF
No audio generated
Serial in INC mode. For every character received, it sends
back the following char. (Type in 'A', get back 'B')

MODE 2: MODE SWITCH OFF (right) OPTION SWITCH ON (left)
Valid LED OFF
PTT ON
1200Hz & 2200Hz audio sent switched at 1200 baud
Serial OFF

MODE 3: MODE SWITCH ON (left) OPTION SWITCH OFF (right)
Valid LED Flashing quickly
PTT ON
1200Hz audio sent
Serial sends the letters 'A' through 'P' quickly

MODE 4: MODE SWITCH ON (left) OPTION SWITCH ON (left)
Valid LED Flashing slowly
PTT ON
2200Hz audio sent
Serial sends the letters 'a' through 'p' slowly

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

46. [picsig] RE: New PicE diagnostic software

From: "Steven R. Bible" <srbible@gate.net>
Date: Sun, 19 Mar 2000 10:31:05 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72050-2000.03.19-09.30.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Byon,

The files picedia2.txt and picedia2.zip have been moved to the
ftp://ftp.tapr.org/picsig/software/ directory.

- Steve N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Byon Garrabrant
> Sent: Saturday, March 18, 2000 8:53 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] New PicE diagnostic software
>
>
> Hi PICers,
>
>   After the suggestions of KC5EVE, I decided to improve the PIC-E
> diagnostic program. The new file, PICEDIA2.ZIP, has just been
> uploaded to the FTP site. (Steve B, please copy over to software)
>
>   The new software now adds tests for serial I/O, and sends
> individual packet tones. The description below is from the
> picedia2.txt file. I believe my PIC-E's switches are reversed from
> most others, so I put the opposite direction in the description. I
> hope it is right.
>
> 73,
> Byon
>
> --
> ---------------------------
>
> picedia2 is a small diagnostic program for the TAPR PIC-E.
> The program tests the MX614 modem chip sending, radio PTT,
> switch reading, serial sending and receiving, and Valid LED.
> Serial is 4800 baud N81. Be sure JP2 is in normal mode to
> test serial reception. The four test modes are:
>
> MODE 1: MODE SWITCH OFF (right) OPTION SWITCH OFF (right)
> Valid LED ON
> PTT OFF
> No audio generated
> Serial in INC mode. For every character received, it sends
> back the following char. (Type in 'A', get back 'B')
>
> MODE 2: MODE SWITCH OFF (right) OPTION SWITCH ON (left)
> Valid LED OFF
> PTT ON
> 1200Hz & 2200Hz audio sent switched at 1200 baud
> Serial OFF
>
> MODE 3: MODE SWITCH ON (left) OPTION SWITCH OFF (right)
> Valid LED Flashing quickly
> PTT ON
> 1200Hz audio sent
> Serial sends the letters 'A' through 'P' quickly
>
> MODE 4: MODE SWITCH ON (left) OPTION SWITCH ON (left)
> Valid LED Flashing slowly
> PTT ON
> 2200Hz audio sent

> Serial sends the letters 'a' through 'p' slowly
>
>
>
>
> _____
> Byon Garrabrant   N6BG   byon@mail.com
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

47. [picsig] MX614 source ?

From: "Marcelo Puhl" <mark@catolico.com.br>
Date: Mon, 20 Mar 2000 09:15:35 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72323-2000.03.20-06.12.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

TAPR sells MX614 at US$ 6.00.

Where could I buy this IC in quantities at lower price ?

Thanks.

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

48. [picsig] Re: MX614 source ?

From: James Jefferson <jjeffers@deskmedia.com>
Date: Mon, 20 Mar 2000 07:34:22 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72337-2000.03.20-07.34.08--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>TAPR sells MX614 at US$ 6.00.

I think TAPR may be out of them in single quantity.

>Where could I buy this IC in quantities at lower price ?

www.compdist.com has always been nice to me. Otherwise call MX*COMM and
find a distributor near you. MX*COMM will sell direct but they have a
minimum order of $250.

-James Jefferson KB0THN

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

49. [picsig] Re: MX614 source ?

From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 20 Mar 2000 08:56:28 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72339-2000.03.20-07.55.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >TAPR sells MX614 at US$ 6.00.
>
> I think TAPR may be out of them in single quantity.

No we're not. TAPR sells the MX614 in single quantities as a service to the
amateur community. This saves most people time dealing with distributors.

If you need to buy higher quantities, search the MX-COM web site
(http://www.mxcom.com) and click on the distributors link.

- Steve N7HPR
  n7hpr@tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

50. [picsig] Re: MX614 source ?

From: John Hansen <john@hansen.net>
Date: Mon, 20 Mar 2000 16:13:17 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72437-2000.03.20-15.16.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 09:15 AM 3/20/00 -0300, you wrote:

>TAPR sells MX614 at US$ 6.00.
>
>Where could I buy this IC in quantities at lower price ?
>
>Thanks.

I just got a quote from Component Distributors of $4.53 each in quantities
of 100. I had to phone them (800-777-7334) because the part was not listed
on their website. This is quite a bit higher than I was quoted the last
time I asked them (about a year ago). I don't know whether that means the
price has gone up or I just happened to get an uncooperative
salesperson. I remember last year when I looked into this I got two
different prices from two different sales reps.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

51. [picsig] Simple TX-only PIC circuit?

From: "Mark D. Conner" <mconner1@home.com>
Date: Tue, 21 Mar 2000 18:30:45 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72696-2000.03.21-18.30.37--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I sent this to the SIG right after subscribing, but apparently Lyris hadn't
yet caught up with the fact I had subscribed. Also, please note I do *not*
want to transmit NMEA data, but rather an arbitrary string of serial data
terminated by a CR.

I have a Basic Stamp 2SX that I'm using as the "brains" for an amateur radio
balloon package. Currently the BS2SX takes in data from a GPS and formats
an APRS position report that includes time (hour/min/sec), lat/lon,
course/speed, altitude, and then other info in the free text field. I'm
then sending this line to a KPC3 v6.0 TNC, which converts it to AX.25 and
audio tones for transmission by a 2m HT. If you're on APRServe, you may see
N9XTN-11 on there when I'm doing some testing of this setup.

What I'd like to do is replace the KPC3 with something smaller, lighter, and
simpler. I don't need a lot of the functionality the KPC3 brings, and even
a MIM module is more than I need. What I'd like to do is have the PIC and
associated circuits do is take the serial data from the BS2 and convert it
into the proper audio tones. Receiving data is not necessary, carrier
detect is optional, and about the only configuration I'd need is callsign,
UNPROTO, and maybe TXD. Any ideas? This seems like something that would
get a lot of use. The PIC-E seems to fit the bill as far as a circuit goes,
but none of the software on the TAPR FTP server seems to quite serve this
purpose. If one of those programs does indeed do this, let me know.

The reason I want the BS2 to handle this instead of a MIM or the PIC

software I've seen is that the BS2 will be performing other functions based
on altitude and/or location. The BS2 will also be talking to an on-board
ADC and taking actions based on those inputs.

73 de Mark N9XTN

Mark D. Conner
E-mail: mconner@null.net n9xtn@arrl.net
Homepage: http://members.home.net/mconner1
"Arrogance and stupidity, all in the same package.....how efficient
  of you!"   - Ambassador Londo Mollari, Babylon 5

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

52. [picsig] Re: Simple TX-only PIC circuit?

From: "Byon Garrabrant" <byon@mail.com>
Date: Tue, 21 Mar 2000 20:49:32 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72742-2000.03.21-22.51.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 21 Mar 00, at 18:30, Mark D. Conner wrote:

> What I'd like to do is replace the KPC3 with something smaller, lighter, and
> simpler. I don't need a lot of the functionality the KPC3 brings, and even
> a MIM module is more than I need. What I'd like to do is have the PIC and
> associated circuits do is take the serial data from the BS2 and convert it
> into the proper audio tones. Receiving data is not necessary, carrier
> detect is optional, and about the only configuration I'd need is callsign,
> UNPROTO, and maybe TXD. Any ideas? This seems like something that would
> get a lot of use. The PIC-E seems to fit the bill as far as a circuit goes,
> but none of the software on the TAPR FTP server seems to quite serve this
> purpose. If one of those programs does indeed do this, let me know.

It should be very possible to modify some of the existing PIC-E
software to do just what you are looking to do. I'm willing to help
you modify my code if you need it.

Byon
_____ _____ _____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

53. [picsig] Re: Simple TX-only PIC circuit?

From: James Jefferson <jjeffers@deskmedia.com>
Date: Tue, 21 Mar 2000 23:25:27 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72774-2000.03.21-23.25.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>It should be very possible to modify some of the existing PIC-E
>software to do just what you are looking to do. I'm willing to help
>you modify my code if you need it.

Likewise with me. Next week I will have a little time to dedicate to
hardware hacking. I've been following your balloon flights for a while -
pretty cool stuff!

But do you really need another uP for this?

If you can get a CRC routine to work in the basic stamp then you won't even
need external hardware - you can easily do the whole thing on the stamp.
You could get away with using just two stamp pins (TXD and PTT). You might
want to ask Tracy Allen on Parallax's stamp list about the CRC. Professor
Anderson (http://www.phanderson.com) might have a routine, too.

Hum ... thinking about it more ... CRC shouldn't even be too hard. John
Hansen's CRC routine could be adapted to STAMP II. You may have to write a

right shift and carry function - but that's no biggie. Do you have John's
paper from the Chicago DCC?

How much non-volatile storage does the stamp have? If you have enough then
you could simply toss a standard pre-computed CRC lookup table into memory.

Hardware is simple. Strap the MX614 into transmit mode (which is in
violation of the specs, I believe - but for your application it should
work) using M0 & M1. Generate your 1200 baud (833ms) clock signal in your
STAMP II when you are transmitting and manually set the TXD pin. Hardware
retimming is much easier, but it will cost you an IO pin.

If you want, I can draw up a schematic for you tomorrow.

Have fun!

-James Jefferson

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

54. [picsig] Re: Simple TX-only PIC circuit?

From: Jeff King <jeff@aerodata.net>
Date: Wed, 22 Mar 2000 00:42:50 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72777-2000.03.21-23.40.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

FYI, the stamp tokenizes its commands and draws them from
E2. The basic stamp1 could do about 2000 instructions per
second, I believe the basic stamp 2 can either do them at 8000
or 20,000 a second (don't remember).

Might be to slow to bit bang AX.25 out.

-Jeff

James Jefferson wrote:

> >It should be very possible to modify some of the existing PIC-E
> >software to do just what you are looking to do. I'm willing to help
> >you modify my code if you need it.
>
> Likewise with me. Next week I will have a little time to dedicate to
> hardware hacking. I've been following your balloon flights for a while -
> pretty cool stuff!
>
> But do you really need another uP for this?
>
> If you can get a CRC routine to work in the basic stamp then you won't even
> need external hardware - you can easily do the whole thing on the stamp.
> You could get away with using just two stamp pins (TXD and PTT). You might
> want to ask Tracy Allen on Parallax's stamp list about the CRC. Professor
> Anderson (http://www.phanderson.com) might have a routine, too.
>
> Hum ... thinking about it more ... CRC shouldn't even be too hard. John
> Hansen's CRC routine could be adapted to STAMP II. You may have to write a
> right shift and carry function - but that's no biggie. Do you have John's
> paper from the Chicago DCC?
>
> How much non-volatile storage does the stamp have? If you have enough then
> you could simply toss a standard pre-computed CRC lookup table into memory.
>
> Hardware is simple. Strap the MX614 into transmit mode (which is in
> violation of the specs, I believe - but for your application it should
> work) using M0 & M1. Generate your 1200 baud (833ms) clock signal in your
> STAMP II when you are transmitting and manually set the TXD pin. Hardware
> retimming is much easier, but it will cost you an IO pin.
>
> If you want, I can draw up a schematic for you tomorrow.
>
> Have fun!
>
> -James Jefferson
>
> ---

> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

55. [picsig] Re: Simple TX-only PIC circuit?

From: James Jefferson <jjeffers@deskmedia.com>
Date: Tue, 21 Mar 2000 23:48:36 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72780-2000.03.21-23.48.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I don't have the time to do the calculations - but here is from Parallax's
website.

Microcontroller: Scenix SX28AC/SS
Speed: 50 MHz / 10,000 instructions per second
EEPROM: 16K bytes (program and data in 8 x 2K program spaces)
Program Length: 4,000 lines of PBASIC
RAM (variables): 32 bytes (6 for I/Os and 26 for variables) plus 63 bytes
"scratch
        pad RAM" for interprogram sharing

Maybe you could precompute everything before clocking it out?

-James Jefferson

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

56. [picsig] Flex Pager?

From: Derek Lassen <kn6td@clubnet.net>
Date: Wed, 22 Mar 2000 03:33:48 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72841-2000.03.22-05.42.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Does anybody know of a Flex Pager encoder for the PIC?

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

57. [picsig] Re: Flex Pager?

From: John Rauch <john_rauch@email.com>
Date: Wed, 22 Mar 2000 07:07:37 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72842-2000.03.22-06.07.35--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Isn't the "Flex" system from Motorola only S/N on the receiver end?

At 03:33 AM 3/22/00 -0800, you wrote:
>Does anybody know of a Flex Pager encoder for the PIC?
>
>
>
>
>---
>You are currently subscribed to picsig as: n4jhr@earthlink.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
>
John Rauch
(407) 869-1450 (Home)
Orlando, Florida
n4jhr@email.com
john_rauch@email.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

58. [picsig] Re: picsig digest: March 21, 2000

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Wed, 22 Mar 2000 10:18:53 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72846-2000.03.22-07.15.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> Hardware is simple. Strap the MX614 into transmit mode (which is in
> violation of the specs, I believe - but for your application it should
> work) using M0 & M1. Generate your 1200 baud (833ms) clock signal in your
> STAMP II when you are transmitting and manually set the TXD pin. Hardware
> retimming is much easier, but it will cost you an IO pin.
>

The MX614 specifications tell we have to tie M0 & M1 to Vcc at power on.
I have used the MX614 without observing that rule. Seems to run ok.
No problems detected at all.

Any ideas ?

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

59. [picsig] Re: picsig digest: March 21, 2000

From: John Hansen <john@hansen.net>
Date: Wed, 22 Mar 2000 08:41:12 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72850-2000.03.22-07.44.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>The MX614 specifications tell we have to tie M0 & M1 to Vcc at power on.
>I have used the MX614 without observing that rule. Seems to run ok.
>No problems detected at all.
>
>Any ideas ?

I spoke to one of MX-COM's engineers about this issue a couple of years
ago. Like you, I have noticed that I never seemed to have a problem even
if I didn't power it up in "zero power mode." The engineer said that this
was not a good idea and that you couldn't count on the part performing
reliably unless it was powered up in zero power mode. Nonetheless, it is
tempting to do so because it seems to work fine anyway and you can save a
pin on the uP if you don't use zero power mode since the chip can be
switched from xmit to receive with just one of the control lines.

Proceed at your own risk, your mileage may vary.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

60. [picsig] Re: Simple TX-only PIC circuit?

From: "Mark D. Conner" <mconner1@home.com>
Date: Wed, 22 Mar 2000 07:52:41 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72853-2000.03.22-07.56.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Byon and James.

The ideal would be to use the BS2SX and send directly to the modem chip, but
I can see where it might tie up a lot of RAM to do that level of bit-busting
to send the desired string.

Having another small board (PIC-E size or so) is not a problem. I have not
programmed PICs before, but after my limited BS2 experience, it seems like
something I'd like to get into. I have coded C programs before, but it's
been a while (work mostly in IDL/PV-WAVE now).

It *seems* simple to just have the PIC turn around the serial input and send
it out, but it always is when someone else does the coding. :)

73 de Mark N9XTN

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

61. [picsig] Re: Simple TX-only PIC circuit?

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Wed, 22 Mar 2000 11:07:13 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72868-2000.03.22-10.07.01--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 21 Mar 2000, Mark D. Conner wrote:

> I sent this to the SIG right after subscribing, but apparently Lyris hadn't
> yet caught up with the fact I had subscribed. Also, please note I do *not*
> want to transmit NMEA data, but rather an arbitrary string of serial data
> terminated by a CR.

Use a MIM. Just wildcard your serial data to always start with a given
first byte (or two) then the MIM will send out that data as is...

bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

62. [picsig] New Flash Devices

From: John Hansen <john@hansen.net>
Date: Wed, 22 Mar 2000 17:37:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72950-2000.03.22-16.40.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I was just trolling through the microchip website and happened to notice
that they had some very interesting new flash devices out. The 16F628, for
example, appears to be pin compatible with the 16F84. However, it has 224
bytes of RAM, on board USART and PWM. It also has 2K of program space and
can pick up an extra two I/O lines if you use the internal oscillator
rather than an external crystal/resonator. I thought this chip looked
particularly interesting because it appears that one could simply drop it
into an existing PIC-E and expect it to work. It does not seem to be in
production yet, though.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

63. [picsig] Re: New Flash Devices

From: Jeff King <jeff@aerodata.net>
Date: Wed, 22 Mar 2000 20:04:15 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72977-2000.03.22-19.02.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> I was just trolling through the microchip website and happened to notice
> that they had some very interesting new flash devices out. The 16F628, for
> example, {..}

> It does not seem to be in
> production yet, though.

Ever since Atmel put the fear of god into MicroChip (or at least made them
embarass themselves by directly responding to them), "vaporware" has been
a serious problem at MC. I remember looking at that chip with interest at least a
year and a half ago..... its supposed to be the cheapest part they have with
a real UART in it.... I think it also has a comparator in it as well.

I now am able to get 16F876's, so I guess eventually they do catch up, but
don't bet your company on any part that has not been in "production" for at
least 6 months.

Anyone know if the 18 series is out yet? These are supposed to be compatible
with the 16C/F877 except lots more RAM/FLASH (yes, I know about the
Atmel mega series..... I'm now looking at the GCC GNU compiler for these
parts now).

73

Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

64. [picsig] Re: New Flash Devices

From: John Hansen <john@hansen.net>
Date: Wed, 22 Mar 2000 20:08:00 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72978-2000.03.22-19.11.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>Anyone know if the 18 series is out yet? These are supposed to be compatible
>with the 16C/F877 except lots more RAM/FLASH (yes, I know about the
>Atmel mega series..... I'm now looking at the GCC GNU compiler for these
>parts now).

Yes, they are available from Digikey. In stock. Another thing I found on
the Microchip website is that they have the beta version of their C
compiler for the 18 series available FOR FREE. They are clear that this is
not going to be free when they finish it and you are only licensed to use
the beta version until they come out with a final product... they won't
support the beta after that.... Nonetheless, it is probably worth grabbing.

You are right about the vaporware, but it seems to me they did pretty well
with the 18 series. I was rather surprised to find it out so early.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

65. [picsig] Re: New Flash Devices

From: Jeff King <jeff@aerodata.net>
Date: Wed, 22 Mar 2000 22:32:26 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-72994-2000.03.22-21.30.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> >
> >Anyone know if the 18 series is out yet? These are supposed to be compatible
> >with the 16C/F877 except lots more RAM/FLASH (yes, I know about the
> >Atmel mega series..... I'm now looking at the GCC GNU compiler for these
> >parts now).
>

> Yes, they are available from Digikey. In stock.

Really?? This is cool, so cool. I didn't even bother to design one in the 16F877 board I did last month.... but I guess the good news is they are supposed to be pin for pin drop-ins.

> Another thing I found on
> the Microchip website is that they have the beta version of their C
> compiler for the 18 series available FOR FREE.

Now Mr. CCS told me a year ago that he was working on a 18 series version, he even had the support of MicroChip. I even signed up to be a beta site, but never saw it. He also takes longer and longer to answer e-mail...so he either is busy working on it or has gone on to something else. I hate to learn a new package but...

> They are clear that this is
> not going to be free when they finish it and you are only licensed to use
> the beta version until they come out with a final product... they won't
> support the beta after that.... Nonetheless, it is probably worth grabbing.

Yes, will download it later tonight. Thanks!

> You are right about the vaporware, but it seems to me they did pretty well
> with the 18 series. I was rather surprised to find it out so early.

I am too.... maybe they actually reacted to the Atmel threat by preforming. Its amazing what a little competition will do.

You made my night John!

73

Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

66. [picsig] Re: New Flash Devices

From: John Hansen <john@hansen.net>
Date: Wed, 22 Mar 2000 22:46:53 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-73001-2000.03.22-21.51.05--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

BTW, Jeff, don't make the mistake I did. If you go to Digikey and do a parts search on "18C" it turns up a bunch of Microchip products but not what you are looking for. That's why I originally thought they weren't available. If, on the other hand, you search on "PIC18C", you'll find the right parts.

John

The competition is certainly doing them good. Not only that, but Microchip stock is up 400% in the last 18 months. (Sorry, it's the economist in my sneaking in again...)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

67. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: John Hansen <john@hansen.net>
Date: Wed, 29 Mar 2000 17:48:30 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-74317-2000.03.29-16.52.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Brian, for sending along the article on multi-drop KISS. I'm copying this message to the picsig group (where the thread started) to gather input from whomever might be interested.

From what I read in the documentation, it does appear that it will not be a big deal to add multidrop to the KISS TNC I'm working on. However, I had a couple of questions. Currently, I have the KISS TNC up and running. In its current incarnation it has 32K of memory. I've divided this into two parts, each of which is essentially a ring buffer, one for transmit and one for receive. Currently, I've devoted 4K to receive and 28 K to transmit. The reason for this is that I'm assuming that after a valid frame is received over the radio, the TNC will be able to forward it directly on to the host computer without delay. On the transmit side, it may not be possible to transmit right away if the frequency is busy. Hence the receive buffer doesn't have to hold as much as the transmit buffer.

If I go to the multidrop format, this will no longer be true, since the TNC will only forward received data when it is polled for data. The question is then, what is the implication for the size of the receive buffer? Should I split the 32K of space in half (16k each for transmit and receive) or should I assume the host is constantly polling and relatively little data will accumulate? Anybody have a feeling for this?

Also, the multidrop format also introduces the possibility of using a checksum between the TNC and the host. Is this mode regularly used by known software (such as G8BPQ)?

Thanks again for sending the article.

John W2FS

At 09:51 PM 3/20/00 -0500, you wrote:

> > From the 10th CNC proceedings:
> > Multi-Drop KISS Operation
> > by Karl Medcalf, WK5M
> > Abstract: John Wiseman (G8PBQ) has developed a multi-drop KISS protocol,
> > allowing several TNCs to be connected to
> > a single serial I/O port while operating KISS mode.

-----snip-----

> Do you have a copy of the 10th proceedings?, if not I will Xerox it and
>send it to you.
>
>73 de brian, ka2bqe

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

68. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: Derek Lassen <kn6td@clubnet.net>
Date: Wed, 29 Mar 2000 15:08:49 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74322-2000.03.29-17.16.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Why make the decision ahead of time?

Here is a real simple solution.
Two queues. Each 256 entries long. Each entry is two bytes.
The queue indexes are bytes. They automagically wrap.
Entry address = Base Address+(N<<1) (use 16 bit arithmetic).
Each entry is a pointer.
Either it points to the next frame in or out, or it is null.
The deque routine walks the relevent queue. It picks up the next entry,
and if it is null, just give up the time slice or break out of the loop.
Otherwise, null the entry in the queue and increment the index.
Use the entry pulled from the queue.
For enqueing, pick up the next entry, if its null, you've got
someplace to store the frame you just got.
Otherwise, you have no more room, throw the frame away.
The code is real fast and robust.

I hope this helps.
(s) Derek

At 05:48 PM 3/29/00 -0500, you wrote:
>Thanks Brian, for sending along the article on multi-drop KISS. I'm
>copying this message to the picsig group (where the thread started) to
>gather input from whomever might be interested.
>
> From what I read in the documentation, it does appear that it will not be
> a big deal to add multidrop to the KISS TNC I'm working on. However, I
> had a couple of questions. Currently, I have the KISS TNC up and
> running. In its current incarnation it has 32K of memory. I've divided
> this into two parts, each of which is essentially a ring buffer, one for
> transmit and one for receive. Currently, I've devoted 4K to receive and
> 28 K to transmit. The reason for this is that I'm assuming that after a
> valid frame is received over the radio, the TNC will be able to forward
> it directly on to the host computer without delay.   On the transmit
> side, it may not be possible to transmit right away if the frequency is
> busy. Hence the receive buffer doesn't have to hold as much as the
> transmit buffer.
>
>If I go to the multidrop format, this will no longer be true, since the
>TNC will only forward received data when it is polled for data. The
>question is then, what is the implication for the size of the receive
>buffer? Should I split the 32K of space in half (16k each for transmit
>and receive) or should I assume the host is constantly polling and
>relatively little data will accumulate?   Anybody have a feeling for this?
>
>Also, the multidrop format also introduces the possibility of using a
>checksum between the TNC and the host. Is this mode regularly used by
>known software (such as G8BPQ)?
>
>Thanks again for sending the article.
>
>John W2FS
>
>
>At 09:51 PM 3/20/00 -0500, you wrote:
>
>> > From the 10th CNC proceedings:
>> > Multi-Drop KISS Operation
>> > by Karl Medcalf, WK5M
>> > Abstract: John Wiseman (G8PBQ) has developed a multi-drop KISS protocol,
>> > allowing several TNCs to be connected to
>> > a single serial I/O port while operating KISS mode.
>
>-----snip-----
>
>
>
>> Do you have a copy of the 10th proceedings?, if not I will Xerox it and
>>send it to you.
>>
>>73 de brian, ka2bqe
>
>
>
>---
>You are currently subscribed to picsig as: kn6td@clubnet.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

69. [picsig] Re: PIC-E 2? was Re: 1-wire WS

From: Jeff King <jeff@aerodata.net>
Date: Wed, 29 Mar 2000 19:22:54 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74331-2000.03.29-18.22.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> Currently, I've devoted 4K to receive and 28 K to
> transmit. The reason for this is that I'm assuming that after a valid
> frame is received over the radio, the TNC will be able to forward it
> directly on to the host computer without delay.   On the transmit side, it
> may not be possible to transmit right away if the frequency is busy. Hence

> the receive buffer doesn't have to hold as much as the transmit buffer.

A good assumption. One of the big problems with orginal KISS is the sending device
doesn't actually know if the frame has been sent. Hence, you have the problem
of still have the SAME frame in the TNC buffer holding off (due to DCD) when
the sending computer assumes the frame wasn't recieved and is sending
the SAME frame once again. What the user sees over the air is the KISS
station ends up sending the same frame multiple times in a row once the DCD
condition is cleared.

This was solved in G8BPQ's implementation of "Acknowledgement mode".
Note the HOST software has to actually implement this as well.

> If I go to the multidrop format, this will no longer be true, since the TNC
> will only forward received data when it is polled for data. The question
> is then, what is the implication for the size of the receive
> buffer? Should I split the 32K of space in half (16k each for transmit and
> receive) or should I assume the host is constantly polling and relatively
> little data will accumulate?   Anybody have a feeling for this?

The host has to constantly poll. This is not defined in the 10th CNC proceedings
however.

As to buffer size, this kind of depends. What is your maximum baud rate on each side
you will support? I think multidrop can go up to 16 devices on each serial
cable. So this, with the baud rate, can be defined as you MINUMUM buffer
size. Lets assume the following AX.25 KISS frame of ~284(?) bytes. Serial port speed
of 19.2kbaud kbaud, radio speed of 1.2kbaud. 16 multidrop KISS devices.

Note, if every radio channel is streaming data at 1.2kbaud, you'll need to at least
support a aggregate serial bandwidth of >19.2kbaud (to allow for overhead).

I would say you'd want at least "3 passes worth of buffer" in the ring. I would say
2 passes worth of buffer, as the assumption is if you miss it the first time, you
get it the second, but there may be turnaround issues etc.

Bottom line, I don't think you'll need much more then 3 * maxframe assuming responsive
polling. In your case, I think the 4K would be just fine as it is now (this would even handle
frames out of spec..... 1K frames seemed to be the violation of choice of the NOS people).

> Also, the multidrop format also introduces the possibility of using a
> checksum between the TNC and the host. Is this mode regularly used by
> known software (such as G8BPQ)?

In NOS it was. G8BPQ as well. Doubt if anything in APRS has gone beyond raw
KISS. The AX.25 kernal in Linux supports full-multidrop as well as checksum
mode. See:

http://linux.com/howto/AX25-HOWTO-6.html#ss6.1

(note this can be extended beyond 2 ports and works fine in multidrop mode,
not just for 2 port TNC's as the article implies)

I'm not sure who supports Acknowledgement Mode, but if its easy, think about
doing it. It fixes one of the biggest problems of Kiss (the decoupling between the
computer and the radio). Doesn't mean the HOST software will use it however.

I did find one reference to it on the net, it is:

http://x22.deja.com/getdoc.xp?AN=177249280&CONTEXT=954373088.92405764&hitnum=0
Dig down into this thread as the discussion is somewhat interesting.

Seems most of those interested in "Acknowledgement mode" skipped it and went right to the
6pack mode. FYI:

 http://www.ife.ee.ethz.ch/~sailer/ham/6pack.ps

So it might not be worthwhile implemented KISS Acknowledgement mode but only checksum
mode (As I haven't found any software yet that supports Acknowledgement mode).

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

70. [picsig] Question about MIC-E protocol...

From: "Art Alto, N6VIG" <n6vig@linkline.com>
Date: Wed, 29 Mar 2000 21:50:59 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74393-2000.03.29-23.54.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm trying to program a 16F876 to decode the data from a $20 Aisin-Seiki GPS and spit out NMEA and MIC-E compressed packets. I've got it working, but my packets are not decoded when the GPS does not have a 2D or 3D fix. I've tried monitoring my packets with both a KPC3+ and a PK88.

Is there something about the character ' ' ' (0x27) (which is sent as the 'Data Type ID' when sending old data) that prevents a packet from being decoded properly? If I set PASSALL ON, it's getting decoded as 0x26. When PASSALL is off, the packet is ignored.

When the GPS has a 2D or 3D fix, all seems fine.

Sample bad packet:
```
000: A6A8A6A2 B2A0E09C 6CAC928E 406303F0   STSQYPpN6VIG 1.x  ........l...@c..
010: 262D3074 1C1C1C6B 2F                  ...:...5.         &-0t...k/
N6VIG-1*>STSQYP:&-0tk/
```

Sample good packet:
```
000: A6A8A6A2 B2A2E09C 6CAC928E 406303F0   STSQYQpN6VIG 1.x  ........l...@c..
010: 602D3074 1C1C1C6B 2F                  0..:...5.         `-0t...k/
N6VIG-1*>STSQYQ:`-0tk/
```

Help, please?
Art Alto N6VIG

---

71. [picsig] Re: Question about MIC-E protocol...

From: Dan Welch - W6DFW <dan@byonics.com>
Date: Thu, 30 Mar 2000 17:21:03 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74514-2000.03.30-19.21.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/enriched

At 09:50 PM 3/29/00 -0800, you wrote:

>>>>

<fontfamily><param>Arial</param>... but my packets are not decoded when
the GPS does not have a 2D or 3D fix.

</fontfamily><<<<<<<<<

Art,

When you do not have at least 3 satellites acquired your GPS can not generate valid position data and you should not transmit a position. Once the GPS acquires 3 Satellites it can set the data valid flags indicating usable 2D data. After the 4th Satellite it can provide 3D data. If your program saves the last valid position in a buffer you could conceivably transmit that buffer in lieu of the real GPS output whenever the GPS data became invalid but is there really a need to clutter the network with stale data? I would suggest that if you

do decide to send the last good data as a filler that you cut the transmission rate as a kindness to others until you again have valid live data. Trying to use invalid GPS data will not give you any useful information, and in fact the results would be worse than using stale data, your position could be anywhere on Earth and even the time will likely be wrong.

- Dan Email: dan@byonics.com

See the GST-1 Converter for Earthmate GPS units at:

http://www.byonics.com/gst-1

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

72. [picsig] Hot PIC

From: "Travis J. Maclay" <travis@btea.org>
Date: Wed, 1 Mar 2000 23:05:31 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74538-2000.03.30-22.05.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hey there,

Looking for a little bit of help. Finished up a PIC this evening and believe I am having a problem I shouldn't be having. Is it normal for the 7805 regulator to get extremely hot? After building the PIC and putting 12 v DC to it, the regulator and heatsink get extremely hot within two to three seconds of powering. Wondering if this is normal or not?

Thanks for any help!

Travis KF4PYA

73. [picsig] Re: Hot PIC

From: "KC5GOI" <kc5goi@kc5goi.net>
Date: Thu, 30 Mar 2000 22:19:18 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74540-2000.03.30-22.16.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Nope, not normal at all. I am running a Mavin GPS off of mine and it gets warm enough to tell it has a temp. Since it is getting hot that fast you might want to double check the solder points. Sounds like you have a short to ground. Before you turn it on again, pull the pic chip, just to be safe.

73, Guy Story
kc5goi@kc5goi.net
http://www.kc5goi.net
940.243.0754
> ----- Original Message -----
> From: Travis J. Maclay
> To: TAPR PIC Development Special Interest Group
> Sent: Wednesday, March 01, 2000 10:05 PM
> Subject: [picsig] Hot PIC
>
> Hey there,
>
> Looking for a little bit of help. Finished up a PIC this evening and believe I am having a problem I shouldn't be having. Is it normal for the 7805 regulator to get extremely hot? After building the PIC and putting 12 v DC to it, the regulator and heatsink get extremely hot within two to three seconds of powering. Wondering if this is normal or not?
>
> Thanks for any help!
>
> Travis KF4PYA

74. [picsig] Re: Hot PIC

From: "Jim Paul" <jamesp@intertex.net>
Date: Thu, 30 Mar 2000 22:17:30 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74541-2000.03.30-22.17.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Travis,

I would expect it to get rather warm because you're dropping about 7 volts
across the regulator. You didn't say what the current demand is, but if it
is around 1 amp, that's about 7 watts dissipated by the regulator. This is
enough to make it warm, but probably not hot.
Now, what could make it get real HOT is oscillation. Make sure you have
capacitors on the input and output to dampen any oscillations that may develop.
Use a capacitor of about 10-50 uF on the input, and anywhere from 20 uF on up
in parallel with a .1 uF on the output. These caps will short any AC on the input
and output to prevent the regulator from oscillating. This should bring the temperature
down if it is in fact oscillating. Let us know what you find.

Regards,

Jim

-----Original Message-----
From: Travis J. Maclay <travis@btea.org>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Thursday, March 30, 2000 10:06 PM
Subject: [picsig] Hot PIC

Hey there,

Looking for a little bit of help. Finished up a PIC this evening and believe I am having a problem I shouldn't be having. Is it normal for the 7805 regulator to get extremely hot? After building the PIC and putting 12 v DC to it, the regulator and heatsink get extremely hot within two to three seconds of powering. Wondering if this is normal or not?

Thanks for any help!

Travis KF4PYA

75. [picsig] Re: Hot PIC

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 30 Mar 2000 23:35:40 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74543-2000.03.30-22.40.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

At 11:05 PM 3/1/00 -0500, Travis J. Maclay wrote:
>
> Hey there,
>
> Looking for a little bit of help. Finished up a PIC this evening and
believe
> I am having a problem I shouldn't be having. Is it normal for the 7805
> regulator to get extremely hot? After building the PIC and putting 12 v DC
> to it, the regulator and heatsink get extremely hot within two to three
> seconds of powering. Wondering if this is normal or not?

You don't say what the load is, but it would be very abnormal for anything pic-ish to pull enough current to heat up the 05 like that. That being said, your reg will dissipate something like 60% of the total power entering the circuit. (12 - 5) = 7V drop, multiplied by the current, gives total heat on the
reg.

Check that the pic (or something else) isn't in the socket backwards.
Check that you have bypasses on the in and out pins of the reg, 0.1uF ought to do it.

I'm an AVR guy myself, but I've done a pic or two.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOORVTIFlGDz1l6VWEQK6pQCfeYHp6TLRTIoOGZWPWkod4iFYuKEAoPPs
CqjGFgh7mQWCO1haamMGCbMe
=vHEI
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

76. [picsig] Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 30 Mar 2000 23:39:13 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74545-2000.03.30-22.44.25--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

BTW:

What sort of documentation is available for assembler-hams?

I'm looking for things like how to assemble an AX25 packet, GPS.. Since I
don't do pic, code dosen't do me a terrible lot of good unless it's well
commented.

Sorry, I just can't give up the speed :)

(BTW: Anyone checked partminer lately? an F84 is the same price an an
AVR8535. I'll leave it to you to check the spec sheets.)
-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOORWIYFlGDz1l6VWEQJAGQCgnb++vxAmcrJHpGs/Kxw+CJesCwkAnjPi
2C7cTGJx3V6rWa36bIO5w+Fp
=NvQI
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

77. [picsig] Re: candle flame flicker

From: "Paul B. Webster VK2BZC" <paulb@MIDCOAST.COM.AU>
Date: Fri, 31 Mar 2000 08:27:58 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74624-2000.03.31-10.07.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

andrew abken wrote:

>   I need to make a lamp immatate the flicker pattern of a candle.

  The PRBNG is the way to go. A 12C508 would do perfectly. Use an OR
function on two of the outputs so the lamp stays on more of the time
than not.

  A clocking rate to the register of about 10 Hz and a 16-bit register
would have a ridiculously long repeat time. Even a 7-bit register using
a 4000 series CMOS counter would cycle in 12 seconds, not particularly
obvious (7-bit feedback is simpler than 8-bit).

  A local magazine article used simply two oscillators and an OR
function (three gates of a schmitt AND IIRC) with a halogen lamp which
has considerable thermal inertia. But I prefer the PRBNG.
--
  Cheers,
        Paul B.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

78. [picsig] Re: Documentation

From: John Hansen <john@hansen.net>
Date: Fri, 31 Mar 2000 12:29:06 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74648-2000.03.31-11.33.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 11:39 PM 3/30/00 -0800, you wrote:
>-----BEGIN PGP SIGNED MESSAGE-----
>Hash: SHA1
>
>BTW:
>
>What sort of documentation is available for assembler-hams?
>
>I'm looking for things like how to assemble an AX25 packet, GPS.. Since I
>don't do pic, code dosen't do me a terrible lot of good unless it's well
>commented.
>
>Sorry, I just can't give up the speed :)

You might find the paper I did on transmitting AX.25 with a PIC for the
1998 DCC to be helpful. It is available at:

ftp.tapr.org

look in the pub/wa0ptv directory for dcc.doc.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

79. [picsig] Re: Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 31 Mar 2000 13:05:40 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74653-2000.03.31-12.10.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>You might find the paper I did on transmitting AX.25 with a PIC for the
>1998 DCC to be helpful. It is available at:

Well, this is pretty much exactly what I was asking for :)
Thanks!

I have an AVR project on my page at www.cedar.net/users/dvanhorn called
"getting started" which I update periodically with new functions, and I
guess I'll put this on the train for the next major version.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOUTJIFlGDz1l6VWEQLEAwCg+qV7IPvZtSt4oFth9In8yQPOO/IAoLu2
x6bSidRdn16aQZzRjw39t9WE
=yjap
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

80. [picsig] Re: Documentation

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Fri, 31 Mar 2000 11:19:07 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74656-2000.03.31-12.16.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

None of the links on your ham radio page are working.

Tom
----- Original Message -----
From: "David VanHorn" <dvanhorn@cedar.net>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Friday, March 31, 2000 2:05 PM
Subject: [picsig] Re: Documentation

> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
>
> >You might find the paper I did on transmitting AX.25 with a PIC for the
> >1998 DCC to be helpful. It is available at:
>
>
> Well, this is pretty much exactly what I was asking for :)
> Thanks!
>
> I have an AVR project on my page at www.cedar.net/users/dvanhorn called
> "getting started" which I update periodically with new functions, and I
> guess I'll put this on the train for the next major version.

>
>
> -----BEGIN PGP SIGNATURE-----
> Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>
>
> iQA/AwUBOOUTJIFlGDz1l6VWEQLEAwCg+qV7IPvZtSt4oFth9In8yQPOO/IAoLu2
> x6bSidRdn16aQZzRjw39t9WE
> =yjap
> -----END PGP SIGNATURE-----
>
>
> ---
> You are currently subscribed to picsig as: toms@inconnect.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

81. [picsig] Re: Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 31 Mar 2000 13:22:03 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74659-2000.03.31-12.26.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

At 11:19 AM 3/31/00 -0700, Thomas M. Schaefer wrote:
>None of the links on your ham radio page are working.

I'm aware of the problem. My HTML editor refuses to open those files for
some arcane reason.
It's not read-only, or permissions, or anything else that makes sense..

The AVR stuff is under "microcontrollers"

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOUW+4FlGDz1l6VWEQIp7QCfb74ZLXNX41M4PJbyYimWq4oqze8An2Hz
woBXXeoVJ1BMcKeTSTZ+jYTF
=q7Nr
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

82. [picsig] Re: Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 31 Mar 2000 13:47:30 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74662-2000.03.31-12.52.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Well! That certainly was an interesting read..

One idea that came to mind, is a chip that interfaces to the modem chip,
and does the low level stuff, so that the main processor isn't tied up in
awkward short delays..

Basically, send it the packet, and let it add the framing, and bit-stuffing.
The same chip could un-frame and un-stuff on the receive side, and appear
to another microcontroller as an SPI peripheral.

I hit on SPI because it dosen't tie up a uart, and it's fast. (2mbits/sec
on the AVRs)
A key point to getting a lot done with a micro is NEVER let it sit and spin.

This chip could know some basic things, for example, if it knows it's
callsign, then it could ignore traffic that is targeted to other stations,
reducing the load on the host. Broadcast addresses could be allowed
through, or not as desired.

The large packets you mention are really a problem though, only the MEGA
series AVRs have enough internal ram to buffer those.   The 8515 has 512
bytes of ram, but of course the system itself will take some, and if the
implementation is full duplex, then you would need an outbound buffer as well.

Interesting read though..

I just finished an interpreter for a tokenized language stored in EEPROM,
with flow control.
That will be in version 4.0 of "getting started", and I'm looking for ways
to efficiently handle mechanisms like those used by TNCs to do their
settings. "mycall kc6ete" sort of things. If I find an approach I like,
that will be in V4 also, but I'm trying hard for a mid-april release, so
that may not make it.
Have a look at the current version on my web site. Those links ARE working :)

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOUc8oFlGDz1l6VWEQJQbgCgzLqR2V2pEQgE57ShJcXsCXWYr7AAoMXI
ETbRaGqEhI3XtGoMWn1LsSIB
=Htpk
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

83. [picsig] Re: Documentation

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Fri, 31 Mar 2000 16:15:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74675-2000.03.31-15.15.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dave

Could you give me your web site again... musta deleted it...

LOVE the ATMEL 8535...

ALOHA
AH6LS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

84. [picsig] Re: Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 31 Mar 2000 16:18:34 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74676-2000.03.31-15.23.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 04:15 PM 3/31/00 -0500, Sadowski, Allan wrote:
>Dave
>
>Could you give me your web site again... musta deleted it...
>
>LOVE the ATMEL 8535...

Feeel the POWER of the dark side :)

www.cedar.net/users/dvanhorn

Follow microcontrollers.

Here's a snapshot of the language interpreter, it's designed to be called
from an idle loop, and requires a 1mS decrement of one ram variable, when

that var is non-zero. I've done some simulations on it, and it appears
functional, but Warning: It's pre-release.

85. [picsig] GPS assistance

From: "Sara Heaton" <sarab@tamu.edu>
Date: Fri, 31 Mar 2000 19:38:4
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74731-2000.03.31-19.38.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Howdy all,
  This is my first attempt at programming a PIC. I am using PIC-E to
receive GPS info. and then transmit this data to a ALINCO DR-570 radio.
Does anyone have any code for this? I have tried the GPS-E-2, but it does
not seem to be working properly. I have programmed the diagnostic checks
and the chip appears to be working correctly. Any suggestions?

Sara

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

April 2000

Original source file: picsig.0004
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0004

1. [picsig] Re: Documentation

From: John Hansen <john@hansen.net>
Date: Sat, 01 Apr 2000 16:23:24 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74907-2000.04.01-15.27.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 01:47 PM 3/31/00 -0800, you wrote:
>-----BEGIN PGP SIGNED MESSAGE-----
>Hash: SHA1
>
>Well! That certainly was an interesting read..

Thanks!

>One idea that came to mind, is a chip that interfaces to the modem chip,
>and does the low level stuff, so that the main processor isn't tied up in
>awkward short delays..
>
>Basically, send it the packet, and let it add the framing, and bit-stuffing.
>The same chip could un-frame and un-stuff on the receive side, and appear
>to another microcontroller as an SPI peripheral.
>
>I hit on SPI because it dosen't tie up a uart, and it's fast. (2mbits/sec
>on the AVRs)
>A key point to getting a lot done with a micro is NEVER let it sit and spin.

Partly this occurs because that code (and my GPS-E-2 code, for that matter)
is only being used to transmit an occasional packet with data obtained
over a serial line (from a GPS in the case of GPS-E-2). On the other hand,
I currently have up and running a KISS mode TNC based on a 16F874. Doing
this requires something that looks a lot more like multitasking. That is
you have to be looking for incoming data over the radio at the same time
that you are sending the last packet on to the computer at the same time
that you are looking for bytes coming in over the serial port that must be
queued up to transmit. That results in somewhat less "sitting and
spinning". If one wanted to (and had the patience) it would be possible to
implement a TNC-2 clone this way, with only one uP.

>The large packets you mention are really a problem though, only the MEGA
>series AVRs have enough internal ram to buffer those.   The 8515 has 512
>bytes of ram, but of course the system itself will take some, and if the
>implementation is full duplex, then you would need an outbound buffer as well.

Actually you need an outbound buffer for half duplex as well. The channel
may be busy and you may have to hold off transmitting until it is
free. This means you actually need substantial memory... probably more for
half duplex than full duplex. The solution I used for this was to use a
32K static ram chip for storage of data waiting to be transmitted and for
storage of the received packet pending CRC check. It works very well
(because the access time is a lot shorter than the clock cycle of the PIC),
but it does tie up 25 of the PIC I/O lines. Could be less, of course, if
one were willing to use additional outboard logic chips, but I wanted to
keep the design down to 1 uP, 1 MX-614, one Static RAM, and one MAX 232.

>Interesting read though..
>
>I just finished an interpreter for a tokenized language stored in EEPROM,
>with flow control.
>That will be in version 4.0 of "getting started", and I'm looking for ways
>to efficiently handle mechanisms like those used by TNCs to do their
>settings. "mycall kc6ete" sort of things. If I find an approach I like,
>that will be in V4 also, but I'm trying hard for a mid-april release, so
>that may not make it.
>Have a look at the current version on my web site. Those links ARE working :)

Thanks for the reference to your page. I've been curious about the AVR for
some time now.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 01 Apr 2000 16:34:50 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74908-2000.04.01-15.41.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>I currently have up and running a KISS mode TNC based on a 16F874. Doing
>this requires something that looks a lot more like multitasking.

My "getting started" package for the AVR is a cooperative multitasker already.
I'm a little nervous about doing a bit-banger as a multitasker, in the
8515, but the 8535 adds another timer, so I could use that to clock the bit
sending/sampling. If I clocked that task at say 4x the bit-rate, then I
could probably run full-duplex as well. Otherwise, I'd only need to clock
at the bit-rate, and synch the timer to the start bit with an int.

>Actually you need an outbound buffer for half duplex as well. The channel
>may be busy and you may have to hold off transmitting until it is
>free. This means you actually need substantial memory... probably more for
>half duplex than full duplex.

Depends, I can HS-OFF the incoming data. Buffers can be re-used..
If forced to, I could probably come up with an ourborous buffer (used from
both ends, full when you meet in the middle :) The rough part is what to
do when you're all full. I hate letting bits fall on the floor. They're so
small, I can never find them again! VBG

>The solution I used for this was to use a
>32K static ram chip for storage of data waiting to be transmitted and for
>storage of the received packet pending CRC check. It works very well
>(because the access time is a lot shorter than the clock cycle of the PIC),
>but it does tie up 25 of the PIC I/O lines.

Yeah, same on the AVR, I can do multiplexed address, so that makes it only
16 lines, plus RD and WR and adrs latch. (with latch chip for addresses)
Actually, someone does make multiplexed SRAM. Same number of lines, but no
external latch.

I wonder if someone makes SPI based RAM? That would be nice, Four pins
would get you a buffer as deep as you like in both directions, and you can
talk to it at 2 MB/S with an interrupt (AVR has SPI int) so speed would be
a total non-issue.

>Thanks for the reference to your page. I've been curious about the AVR for
>some time now.

Come to the dark side luke! :)
That $200 ICE is one nice box.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOaVqoFlGDz1l6VWEQJIkACfcgSP6IVqJqOthCuO0kFkxPfgNPEAnAkg
FbVshJp4vZfpIT1ei6liOLg8
=P42N
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Re: Documentation

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 01 Apr 2000 16:42:15 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74911-2000.04.01-15.48.49--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1



Seek and you shall find.

Ramtron 25160 SPI 2kx8 FRAM
or a 24C64 8kx8 with a 2 wire interface you'd have to bit-bang.
So, a couple of pointers in internal ram, and you'd have plug-in ring
buffers :)


-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOaXZ4FlGDz1l6VWEQLUZQCgzFFlaKRuzRUTmgiI1Kx4KUyoJV0An13G
RVmK6rGH8w05TOjIrU0lAbtR
=MgvP
-----END PGP SIGNATURE-----


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

4. [picsig] Re: Documentation

From: Jeff King <jeff@aerodata.net>
Date: Sat, 01 Apr 2000 16:50:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74912-2000.04.01-15.49.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> I wanted to
> keep the design down to 1 uP, 1 MX-614, one Static RAM, and one MAX 232.

I was looking at a MicroChip app note the other day and ran across a interesting
RS-232 driver idea instead of a MAX232. They use one of the PWM channels to
drive a diode rectifier through a cap. This is setup so the rectified voltage is
-5Volts. They then use a PNP transistor as the RS-232 driver with +5volts at
the top, and -5Volts at the bottom (through some resistors of course).

You also use the clock oscillator in a similar fashion.

The receive is similarly done through a input NPN transistor/resistor (assuming
you are using the hardware UART).

In total, saves about $1.00 and a little space. Also a little easier to route the
board as you have more options on where to place something.

Here is the app note, look for the reference design:
(its 1.91megs long, look on page 55/51 for the reference design)

http://www.microchip.com/Download/Lit/RFID/Guides/21299c.pdf

-Jeff

P.S. National makes a MAX232 clone part, DS14C232, its quite a bit cheaper and drops
in. See: http://www.national.com/pf/DS/DS14C232.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Re: Documentation

From: John Hansen <john@hansen.net>
Date: Sat, 01 Apr 2000 20:16:59 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-74927-2000.04.01-19.21.08--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 04:42 PM 4/1/00 -0800, you wrote:
>-----BEGIN PGP SIGNED MESSAGE-----
>Hash: SHA1
>
>
>
>Seek and you shall find.
>
>Ramtron 25160 SPI 2kx8 FRAM
>or a 24C64 8kx8 with a 2 wire interface you'd have to bit-bang.
>So, a couple of pointers in internal ram, and you'd have plug-in ring
>buffers :)

The first version of the TNC I did with 2 of the 25160's, providing a total
4k of memory. I came to the conclusion that this would not be enough
memory. The TCP/IP guys are running 1K packet lengths, I gather, and I
wanted to make sure that there would be enough space to accommodate
this. The 24C64 would probably work as well, but it still leaves you with
only 8k. However both of these chips are fairly easy to string along in a
bus configuration. In quantity the 24C64 would cost about $2.25, but
Future (the only distributor) says they don't have any available
currently. I finally decided to go with the static ram because it has a
large memory, requires only one (really cheap!) chip and is extremely easy
to program (no bit-banging). I did find that there was enough time
available to do the bit-banging with the 25160. Even approaching each byte
write as a separate operation (rather than writing sequentially) there was
enough time. Those Ramtron devices certainly are nice, especially if you
need nonvolatile memory.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] gps sentences

From: "Gustavo Carpignano" <gcarpi@sinectis.com.ar>
Date: Mon, 3 Apr 2000 08:04:56 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75142-2000.04.03-06.06.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi!!

I testing my pic-e kit and works nice.

I using a garmin gps connected to it. I looking for software that
send directly the $GPRMC or $GPGGA sentece without any convertion.

Thanks for your help.

Regards.

73 Gustavo,LW2DTZ

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Re: gps sentences

From: Jim White <jim@coloradosatellite.com>
Date: Mon, 03 Apr 2000 07:31:27 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75176-2000.04.03-08.31.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hola Gustavo,
What is happening with your satellite? I though I saw that it was
delivered to Russia last year?

jw
wd0e@amsat.org
jim@coloradosatellite.com

At 08:04 AM 04/03/2000 -0300, you wrote:

>Hi!!
>
>I testing my pic-e kit and works nice.
>
>I using a garmin gps connected to it. I looking for software that
>send directly the $GPRMC or $GPGGA sentece without any convertion.
>
>Thanks for your help.
>
>
>Regards.
>
>73 Gustavo,LW2DTZ
>
>
>---
>You are currently subscribed to picsig as: jim@coloradosatellite.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] AX.25 receiving routine in C

From: "James A. Martin Jr." <tapr2@jmartin.net>
Date: Wed, 5 Apr 2000 20:58:47 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75650-2000.04.05-19.59.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John & SIG,
        Does anyone have a AX.25 packet receive routine written in C that I can use
as a starting point for a packet receiving --> GPS program I am writing for
the PIC. Anything would be more useful than what I have now. It doesn't have
to be a complete program - just a couple of lines that will help me get
started. John's GPS-E-2f has been a great help so far!!

Thanks in advance,

James A. Martin Jr.
KD5HAD
888-610-4078 - Pgr.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Re: AX.25 receiving routine in C

From: John Hansen <john@hansen.net>
Date: Wed, 05 Apr 2000 21:43:39 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-75659-2000.04.05-20.48.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 08:58 PM 4/5/00 -0400, you wrote:
>John & SIG,
>   Does anyone have a AX.25 packet receive routine written in C that
> I can use
>as a starting point for a packet receiving --> GPS program I am writing for
>the PIC. Anything would be more useful than what I have now. It doesn't have
>to be a complete program - just a couple of lines that will help me get
>started. John's GPS-E-2f has been a great help so far!!
>
>Thanks in advance,
>
>James A. Martin Jr.
>KD5HAD
>888-610-4078 - Pgr.

James:

         I've been working on a response to your first message. I'm sorry
I didn't get back to you sooner. I really should get in the habit of
sending a "received your message and I'm working on a response"
message. I'm afraid this happens to me all too often when I don't have
something to send immediately.

I have indeed written CCS C code to receive packet. I've not written it up yet in the form of a paper to explain how to do it (like I did with the transmit code) but I'm sure I'll get that done before the digital communications conference in the fall. The real problem for me was that my goal wasn't to receive packet, but rather to create a complete KISS TNC. I've basically completed that now (though I'm still in the process of adding features to it) but now the receive code is embedded in the larger program. It can't be completely disentangled because the code that receives is interspersed with code that takes transmit data coming in from the serial port and stores it for transmit and also pumps the received data out the serial port (while it is receiving the next packet). What I need to do to be of any real assistance to you is to go back to the very early versions of the program where all I was trying to do was to get it to receive packets and send you that code. I'll try to see if I can find that tonight. Here are a few things to consider:

1. I did this with a 16F877 chip (not a 16F84). The reason is that I wanted to use the built in USART. This is not much of a consideration if you just want to receive an occasional packet, but if you have the sort of multitasking problems I talked about in the last paragraph, it's MUCH easier if you don't have to bit bang the serial port communication. Using the USART, you can just put a byte out there with a couple of instructions and then not worry about the timing of transmitting the byte over the serial line. If you end up adapting my code to a device that does not have a USART, this may affect some of the timing in it.

2. You have to have memory storage space that is large enough to hold an entire packet frame. The reason for this is that you have to calculate the CRC before you decide whether to send the packet out the serial port or not. For MIC-E compressed APRS packets, there might be enough memory in an F84. For a more normal TNC PACLEN setting of 128 or more, the F84 just doesn't have enough memory. Like some of the others who have gone down this road I first tried using a Ramtron FRAM part. The sample code that I have from the early stages that just receives is based on this FRAM part. Since I was building a TNC, not just a receive device, I needed more memory. In particular, if the channel was busy, it was possible that outgoing packets would need to be stored in the TNC waiting for the channel to clear before they were sent. At first I used two of the 2K FRAM parts, but a number of considerations led me to conclude that this was inadequate as well. For one thing, I gather many of the TCP/IP folks are using PACLEN's of 1K. In any case, you will probably need some outboard storage. The newer flash parts (like the F877) do have considerably more RAM (the 877 has 368 bytes) but you need to work around some problems to use all that memory, especially when using CCS C. For one thing, the RAM is in banks, not continuous addresses. And the banks are different sizes. In CCS C I don't seem to be able to create an array that spans more than one bank. That means creating an array larger than 80 bytes is impossible. So you would have to create a series of arrays to use (even for the data from one packet). Secondly, you have to specify 16 bit addressing for the RAM in order to utilize all of it. In the back of the CCS manual it explains how to do this. These problems, coupled with the fact that I really needed more memory than this anyway, caused me to ultimately go to a 32K static ram chip for memory. It takes 25 I/O lines, but it does work quite well and is easy to program.

Anyway, I'll attempt to dig out the old code for you this evening and get back to you.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Offer of help....

From: "Tj Johnston" <n4uyq@arrl.net>
Date: Wed, 5 Apr 2000 22:08:28 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75662-2000.04.05-21.08.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,

As the current programmer for the APRSdigi for DOS program, I am extremely interested in the success of you KISS tnc. If there is anyway I can help ... test-bed... torture testing, or anything.. let me know... I have been

licensed for 22 years and working with electronics, mostly digital, and a
little analog, for over 12 years.

==
Tj Johnston, N4UYQ   ICQ#3134626
Hopewell, VA - Prince George Co. ARES/RACES
Eastern Virginia APRS Group (EVA) - Sec/Treas.
EVA Homepage: http://www.qsl.net/eva/
APRSdigi Homepage: www.qsl.net/n4uyq/aprsdigi.htm
==

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] Re: Offer of help....

From: John Hansen <john@hansen.net>
Date: Wed, 05 Apr 2000 22:33:12 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75664-2000.04.05-21.37.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 10:08 PM 4/5/00 -0400, you wrote:
>John,
>
>As the current programmer for the APRSdigi for DOS program, I am extremely
>interested in the success of you KISS tnc. If there is anyway I can help ...
>test-bed... torture testing, or anything.. let me know... I have been
>licensed for 22 years and working with electronics, mostly digital, and a
>little analog, for over 12 years.

Thanks for note Tj. Here's my current thinking. This seems to be working
in KISS mode, but I've only tested it with my own UITerm program (that
program requires a KISS TNC). I also tested it on receive with WinAPRS,
but there is so little APRS activity around here that I picked up a couple
of stations, but not many. I'd love to see this tested a bit more before I
call it done. I think that the way I'm going to do that is to build up a
couple of them and ask folks like you for help. However, I'm not sure when
to do that. I'm currently in the process of adding a microphone encoder
function to it so it could be used in that form as well as a tnc. The
reason I thought of doing this is that it requires no more hardware than
the KISS TNC. That is, I've got lots of code space (even in the 4K 16F874)
and I've already got the packet transmit routines built in for the KISS
transmit. However, to do this I had to find a way to get the parameter
data (callsign, path, etc) into the nonvolatile eeprom storage on the
PIC. This was not an issue for the KISS TNC. I do not want to try the
on-board programmer approach that we used with the PIC-E (in part because
there are additional problems that occur when you use an F877 for this
rather than an F84), so I'm building a terminal interface into the
unit. Users will be able to plug it into any kind of terminal and
configure it.

I've also been approached about making this handle multidrop KISS. I'm
leery of this because I have no applications here that use multidrop KISS
so testing will be difficult. Back in the early days of packet I ran a BBS
and a G8BPQ switch (which uses multidrop kiss) and my memories of setting
it up are that it was nontrivial. Nonetheless, again, the incremental
hardware cost of adding this is zero, so its hard to justify not doing
it. So I have to decide how far to proceed down this path before building
some units.

I think what I'll do is to order enough parts now to build a few and try to
finish up the mic-encoder function. Then it might make sense to send you
one to see how it works for you. It will probably take another week or so
to finish the coding (my work commitments in the next couple of weeks are
heavier than normal) and then a few days to build some samples. When you
get a chance, send me your address. Thanks for the offer.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Re: AX.25 receiving routine in C

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 05 Apr 2000 21:41:45 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-75666-2000.04.05-21.49.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

A
>         I have indeed written CCS C code to receive packet.  I've not
>written it up yet in the form of a paper to explain how to do it (like I
>did with the transmit code) but I'm sure I'll get that done before the
>digital communications conference in the fall.


Is reception fairly obvious from what you wrote up on transmission?
(BTW: Excellent job!)

I'm probably going to launch on an AVR implementation in the next month or so.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOwViYFlGDz1l6VWEQLTZwCeNhqCif8rklIagHHdqZLYHBEUimcAnjbX
wlIS1nrskfVY4oAVemGyXFnZ
=JrEj
-----END PGP SIGNATURE-----


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

13. [picsig] Re: AX.25 receiving routine in C

From: Jeff King <jeff@aerodata.net>
Date: Thu, 06 Apr 2000 01:03:52 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75715-2000.04.06-00.02.47--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
John Hansen wrote:

>   These problems, coupled with the
> fact that I really needed more memory than this anyway, caused me to
> ultimately go to a 32K static ram chip for memory.  It takes 25 I/O lines,
> but it does work quite well and is easy to program.

I'd be interested in seeing this routine, and it might be a good example
program for the CCSINFO site.

-Jeff wb8wka



---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

14. [picsig] re: AX25 Code in C

From: "Darryl Smith" <darryl@radio-active.net.au>
Date: Thu, 6 Apr 2000 21:36:05 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75744-2000.04.06-06.35.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
G'Day All...

One of the projects that I want to get done real soon now is an 8 channel
receive only TNC... With something a bit more powerful than a PIC, but maybe
using the PIC code... The idea is that I could then monitor the local
repeaters and packet channels for APRS data... I imagine that there would
not be too much more work to add extra ports to any of the code....

Darryl

---------
```

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au for domain names

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Re: AX.25 receiving routine in C

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Thu, 6 Apr 2000 13:43:42 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75806-2000.04.06-12.43.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

GO David V.... Love the AVR....

> -----Original Message-----
> From: David VanHorn [SMTP:dvanhorn@cedar.net]
> Sent: Thursday, April 06, 2000 12:42 AM
> To: TAPR PIC Development Special Interest Group
> Cc: picsig@lists.tapr.org
> Subject: [picsig] Re: AX.25 receiving routine in C
>
> -----BEGIN PGP SIGNED MESSAGE-----
> Hash: SHA1
>
> A
> >   I have indeed written CCS C code to receive packet. I've not
> >written it up yet in the form of a paper to explain how to do it (like I
> >did with the transmit code) but I'm sure I'll get that done before the
> >digital communications conference in the fall.
>
>
> Is reception fairly obvious from what you wrote up on transmission?
> (BTW: Excellent job!)
>
> I'm probably going to launch on an AVR implementation in the next month or
> so.
>
> -----BEGIN PGP SIGNATURE-----
> Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>
>
> iQA/AwUBOOwViYFlGDz1l6VWEQLTZwCeNhqCif8rklIagHHdqZLYHBEUimcAnjbX
> wlIS1nrskfVY4oAVemGyXFnZ
> =JrEj
> -----END PGP SIGNATURE-----
>
>
> ---
> You are currently subscribed to picsig as: asadowski@ncshp.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Re: AX.25 receiving routine in C

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 06 Apr 2000 13:45:01 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75824-2000.04.06-13.52.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

At 01:43 PM 4/6/00 -0400, Sadowski, Allan wrote:
>GO David V.... Love the AVR....

Actually, I'm going to change "probably" to "already started" as I have a
project that requires an error-detecting RF link that just landed in my
lap. Since I don't have to debate a committee, I'll just use AX25 for it,
which will make troubleshooting a whole lot easier, since I happen to have
AX25 moda laying around..

This one will be half-duplex FSK, but I can always hack the FSK receiver
into the modem header on a TNC-2

Actually, the PC end of this project will be almost a TNC as it is, since I
will have a large SRAM, and the AVR, and a serial port.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOOz3TYFlGDz1l6VWEQKouACgyHC8EA/CiLbbKULgriX7yM6men8An27n
cvay05+QOcA1pu1z463Z/1nr
=7Cnp
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] re: AX25 Code in C

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Thu, 6 Apr 2000 15:04:00 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75828-2000.04.06-14.04.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Darryl

I understand that with the SX part... you can use PIC code and have 8
receive serial channels - all with one part...

You aware of this?

ALOHA
AH6LS

> -----Original Message-----
> From: Darryl Smith [SMTP:darryl@radio-active.net.au]
> Sent: Thursday, April 06, 2000 7:36 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] re: AX25 Code in C
>
> G'Day All...
>
> One of the projects that I want to get done real soon now is an 8 channel
> receive only TNC... With something a bit more powerful than a PIC, but
> maybe
> using the PIC code... The idea is that I could then monitor the local
> repeaters and packet channels for APRS data... I imagine that there would
> not be too much more work to add extra ports to any of the code....
>
> Darryl
>
> ---------
> Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
> Mobile Number 0412 929 634 [+61 4 12 929 634 International]
> Darryl@radio-active.net.au | www.radio-active.net.au for domain names
>
>
> ---
> You are currently subscribed to picsig as: asadowski@ncshp.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] re: AX25 Code in C

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 06 Apr 2000 14:28:16 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75833-2000.04.06-14.39.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

At 03:04 PM 4/6/00 -0400, Sadowski, Allan wrote:
>Darryl
>

>I understand that with the SX part... you can use PIC code and have 8
>receive serial channels - all with one part...

I saw the claim, but I don't believe it. (at least not that and do anything
else)
The scenix is overblown. By the time you make your "virtual peripherals"
you have eaten half the chip.

For example, the bytes won't all be in sync with each other, so you would
have to sample something like 8x the bit rate on each input, and develop
some sort of offset pointer to a master bit-rate engine... real messy.

I could see a scenix chip maybe handling the AX25 layer, full duplex,
talking some two wire protocol to another micro..
-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOO0CMYFlGDz1l6VWEQKnGQCfXP1tHkDSNglhjpOSsjq+idpt4doAoI/m
qyFSUfl0FnOT5fSRn3BRofs9
=K9XU
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: Offer of help....

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Thu, 06 Apr 2000 17:56:47 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75861-2000.04.06-16.58.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

on 4/5/00 10:33 PM, John Hansen at john@hansen.net wrote:

> I've also been approached about making this handle multidrop KISS. I'm
> leery of this because I have no applications here that use multidrop KISS
> so testing will be difficult. Back in the early days of packet I ran a BBS
> and a G8BPQ switch (which uses multidrop kiss) and my memories of setting
> it up are that it was nontrivial. Nonetheless, again, the incremental
> hardware cost of adding this is zero, so its hard to justify not doing
> it. So I have to decide how far to proceed down this path before building
> some units.

  I disagree. I ran BPQ with multi-drop KISS for years here and it was easy
to setup ...

--
Brian B. Riley --> http://members.macconnect.com/~brianbr
  For PGP Keys <mailto:brianbr@wulfden.org?subject=Get%20PGP%20Key>

  "I do believe that where there is a choice only between cowardice and
   violence, I would advise violence." -- Mahatma Gandhi

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] MicroChip 2000 CD out now

From: Jeff King <jeff@aerodata.net>
Date: Thu, 06 Apr 2000 19:32:10 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75864-2000.04.06-18.31.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

FYI

Maybe this is old news, but I just went by my local MicroChip sales office and they now
have the Q1 2000 CD out now of there parts.

-Jeff wb8wka

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] re: AX25 Code in C

From: "Darryl Smith" <darryl@radio-active.net.au>
Date: Fri, 7 Apr 2000 19:55:29 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75938-2000.04.07-04.54.55--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

OK... What is the cheapest PIC that can be used to decode AX25 1200bps, to
an ASYNC datastream...

Also has anyone programmed a multiplexor already that will take 8 async
inputs and output them to a single ASYNC once a CRLF comes in...

Many thanks

Darryl

Darryl Smith, VK2TDS POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au for domain names

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Fw: [announce] PICC-Lite - a freeware PIC16x84 compiler from HI-TECH Software

From: "Art Alto, N6VIG" <n6vig@linkline.com>
Date: Fri, 7 Apr 2000 07:10:12 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75956-2000.04.07-09.10.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Just thought some of you might be interested...

Art Alto N6VIG
----- Original Message -----
From: <clyde@htsoft.com>
To: <announce-list@htsoft.com>
Sent: Friday, April 07, 2000 04:34
Subject: [announce] PICC-Lite - a freeware PIC16x84 compiler from HI-TECH
Software

> HI-TECH Software is delighted to announce that the popular 16C84,
> 16F84 and 16F84A Microchip PIC devices are now supported by a
> high-quality, completely free, C compiler.
>
> PICC-Lite is essentially the same as our full-featured, industrial
> grade PICC compiler, but supports only the 16x84 devices. We have
> made this tool available for educational, hobby and commercial use
> in order to return to the PIC user community some of the value
> that we have gained from other's contributions over the last
> few years.
>
> These particular devices are popular with non-commercial
> users due to the EEPROM/Flash program memory.
>
> Grab it, use it, and enjoy it. The compiler can be
> downloaded (about 1MB) from our web site http://www.htsoft.com/
> along with a manual (also about 1MB).
>
> Happy PICCing!
>
> ---
> This message was relayed by the HI-TECH Software Announcement mailing
list.
> For help or to unsubscribe send mail to announce-request@htsoft.com.
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] Free C Compiler

From: Derek Lassen <kn6td@clubnet.net>
Date: Fri, 07 Apr 2000 22:26:51 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-75995-2000.04.07-13.29.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just got a notice from HiTech for there new PD (free) C compiler for 16F84.

See http://www.htsoft.com/

73 de KN6TD.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] re: AX25 Code in C

From: "Byon Garrabrant" <byon@mail.com>
Date: Sat, 8 Apr 2000 07:48:04 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76134-2000.04.08-09.50.01--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 7 Apr 00, at 19:55, Darryl Smith wrote:

> OK... What is the cheapest PIC that can be used to decode AX25 1200bps, to
> an ASYNC datastream...
>

You should be able to do it with almost ANY PIC. You may not be
able to receive large packets, or you might need an added RAM
chip, but I'd think you could do it with a 16C505, which are $2 in
sinlges, and $1 in quantity.

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] PIC-E config 2 path

From: Lee810@aol.com
Date: Sun, 9 Apr 2000 22:06:48 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76469-2000.04.09-21.07.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have been running the PIC-E for a while and noticed that the PATH variable
in configuration 2 is not getting transmitted. I have exchanged email with
John Hansen about this and he has not had any other reports of it, but if it
is a bug, it would be easy to miss since the packet will go out correctly.
It just won't be digipeated.

I was wondering if any of the other PIC-E users can run a simple test by
switching between config 1 and 2 and monitor the packets being transmitted
and see if the PATH text is transmitted when switched to config 2. I
programmed my PIC-E several times with the same results. The reason I
noticed this is because whenever I took the PIC-E up in the plane, (config 2)
I only got 'direct' packets, but no digipeated packets.

Another thing I've noticed is that SW1 and SW2 work opposite of the
documentation. That is, position 1 is to the right and position 2 is to the
left. I think this is a result of substituting toggle switches for the slide
switches in the final kit. If I can get confirmation that this is the same
for others, we can put in a request to change the documentation for others
who get the kit.

73,

Lee Devlin, K0LEE
Greeley, CO Visit my PIC-E page at:

http://members.aol.com/lee810/pic-e.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

26. [picsig] Re: PIC-E config 2 path

From: John Hansen <john@hansen.net>
Date: Sun, 09 Apr 2000 23:33:51 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76471-2000.04.09-22.38.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 10:06 PM 4/9/00 -0400, you wrote:
>I have been running the PIC-E for a while and noticed that the PATH variable
>in configuration 2 is not getting transmitted. I have exchanged email with
>John Hansen about this and he has not had any other reports of it, but if it
>is a bug, it would be easy to miss since the packet will go out correctly.
>It just won't be digipeated.
>
>I was wondering if any of the other PIC-E users can run a simple test by
>switching between config 1 and 2 and monitor the packets being transmitted
>and see if the PATH text is transmitted when switched to config 2. I
>programmed my PIC-E several times with the same results. The reason I
>noticed this is because whenever I took the PIC-E up in the plane, (config 2)
>I only got 'direct' packets, but no digipeated packets.

As it turns out, Lee has indeed found a bug in the code. I've fixed it and
will post a new version to the TAPR upload area as soon as Lee gets a
chance to test this version and confirm that it is indeed fixed. The
problem occurs only on the path on configuration two. It simply doesn't
transmit the path at all.   The problem lies not with the PIC code, but
with the GUI program that modifies the PIC code to insert your
parameters. Sorry for any inconvenience.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

27. [picsig] Little test sw

From: "Gustavo Carpignano" <gcarpi@sinectis.com.ar>
Date: Mon, 10 Apr 2000 07:03:12 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76521-2000.04.10-05.05.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

I made a little program for send a simple packet beacon via pic-e. As
allways it didn't ran
the first time,(second and third...). If someone in the list is interesting
to debug with me I 'll send it.

Regards.

73 Gustavo,LW2DTZ

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] PIC Enclosure

From: "James A. Martin Jr." <tapr2@jmartin.net>
Date: Tue, 11 Apr 2000 10:33:25 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76769-2000.04.11-09.34.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Sig,

Was the PICE designed with a particular enclosure in mind? Looking for a
metal NEMA style enclosure that has standoffs built in that match the
mounting holes on the PICE board.

Thanks,
James A. Martin Jr.
KD5HAD
james@jmartin.net

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] Re: PIC Enclosure

From: Lee810@aol.com
Date: Tue, 11 Apr 2000 13:15:42 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76789-2000.04.11-12.17.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated Tue, 11 Apr 2000 10:35:23 AM Eastern Daylight Time, "James A. Martin Jr." <tapr2@jmartin.net> writes:

> Sig,
>
> Was the PICE designed with a particular enclosure in mind? Looking for a
> metal NEMA style enclosure that has standoffs built in that match the
> mounting holes on the PICE board.

Yes, it was designed for a radio shack enclosure as shown on:

http://www.tapr.org/~n7hpr/pic-e/encl/index.html

I have been accumulating some PIC-E information on the following page that answers this and other questions:

http://members.aol.com/lee810/pic-e.html

Lee Devlin, K0LEE

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] no PTT

From: "larry" <n6ifp@jps.net>
Date: Tue, 11 Apr 2000 19:31:23 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76857-2000.04.11-21.32.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just got my PIC-E together and programmed . When I connect the GPS and add power the PWR and Valid leds come on , The PTT led will blink but it wont come on again to indicate it is transmitting. any suggestions. tnx Larry

31. [picsig] Re: no PTT

From: Lee810@aol.com
Date: Wed, 12 Apr 2000 02:01:49 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76895-2000.04.12-01.02.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 4/11/00 8:33:05 PM Mountain Daylight Time, n6ifp@jps.net writes:

> I just got my PIC-E together and programmed . When I connect the GPS and
> add
> power the PWR and Valid leds come on , The PTT led will blink but it wont
> come on again to indicate it is transmitting. any suggestions. tnx Larry

I may be mistaken, but I believe the GPS has to have a good lock in order to illuminate the VALID LED. The PIC-E always transmits one packet just after power up which may containing invalid data, but I would think that unless the VALID LED is on, the PIC-E should refrain from transmitting. There is no 'theory of operation' that I've been able to find for the PIC-E to answer questions such as these so if anyone is familiar with how it's really supposed to operate, please jump in.

Lee Devlin, K0LEE

Greeley, CO Visit my PIC-E page at:
http://members.aol.com/lee810/pic-e.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] PIC-E ROUTINE

From: "Gustavo Carpignano" <gcarpi@sinectis.com.ar>
Date: Wed, 12 Apr 2000 06:51:22 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-76915-2000.04.12-04.53.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

I reading pic-e's microcode, special nmea.asm routine.
As I watched that routine load in memory all the $gprmc
sentence,but the subroutine mic-e convert this to a
special format. I thought that is possible to bypass this
step and to send the normal sentence. Is this correct ?
If someone in the list have idea will be great to work
together for do it with this sentence or $gpgga.

Regards.

73 Gustavo, LW2DTZ

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] A-Compass uploaded to TAPR

From: Jeff King <jeff@aerodata.net>
Date: Wed, 12 Apr 2000 18:16:00 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77038-2000.04.12-17.25.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

A-Compass

By Jeff King WB8WKA

This software is available only for non-commercial amateur radio or educational applications. All
other uses are prohibited. This software may be modified only if the resulting code be made
available
publicly and the original author given credit. Contact the author for information on commercial
licenses.
(c) Copyright 2000, Robert Jeffrey King. All rights reserved.

A-Compass is a Fluxgate compass adapter intended to work with APRS(tm of wb4apr) type applications
in direction finding applications. It can work on the same serial port as a existing GPS.
It does this by inserting standard NEMA compass bearing sentences into the "dead spots" between
the standard GPS type sentences. In this way, you don't have to tie up a additional serial port.

A WORK IN PROGRESS

When I started this project, I had access to the Precision Navigation Vector 2X fluxgate compass.
This is what many of you saw at Dayton 99. However, shortly after that, I had to return the compasse(s)
to there owners (it was for a unrelated project) and now I have no way to test it. So instead of
just letting the work fade away, I am releasing it to ARPSdom. Now if someone were
to loan me a Vector 2X compass, I would finish it up. However, since I have no personal interest
in APRS DF'ing, I can't justify spending the $49. But the project is more then 75% complete. All
the Vector 2x routines are full debugged and working, the software just needs to be streamlined down
into the format you see expressed in the schematic. I even have a wirewrap circuit made up for
the schematic. The schematic is in both .gif and ORCAD format. No PCB has been done yet.

Alll source code is done using CCS PCM C compiler. I made no attempt to clean anything up, like
I said, this was unreleased code.

I've uploaded this to the TAPR site under the name "a-compass2.zip" (please change this to
a-compass.zip Steve..... I forgot to set image mode the first time I tried). I suspect the best
place to put it would be in the PIC-E area. I'll let Steve Bible decide that.

73

Jeff King wb8wka

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] Re: A-Compass uploaded to TAPR

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 12 Apr 2000 17:10:08 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77040-2000.04.12-17.30.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>When I started this project, I had access to the Precision Navigation
Vector 2X fluxgate compass.
>This is what many of you saw at Dayton 99. However, shortly after that, I
had to return the compasse(s)
>to there owners (it was for a unrelated project) and now I have no way to
test it. So instead of
>just letting the work fade away, I am releasing it to ARPSdom. Now if
someone were
>to loan me a Vector 2X compass, I would finish it up. However, since I
have no personal interest
>in APRS DF'ing, I can't justify spending the $49. But the project is more
then 75% complete. All
>the Vector 2x routines are full debugged and working, the software just
needs to be streamlined down
>into the format you see expressed in the schematic. I even have a wirewrap
circuit made up for
>the schematic. The schematic is in both .gif and ORCAD format. No PCB has
been done yet.

Tell Mark and Keith to loan you mine.
I sent it to them MANY moons ago.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOPUQYIFlGDz1l6VWEQLdKgCfbLudz0o16kRt8s9lfx3ce0e5OyEAoNyE
4dhyVG2qu+NjyYRVQqfiXq2i
=c4CL
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

35. [picsig] RE: A-Compass uploaded to TAPR

From: "Steven R. Bible" <srbible@gate.net>
Date: Thu, 13 Apr 2000 11:50:45 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77257-2000.04.13-10.51.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

a-compass.txt and a-compass.zip have been move to

  ftp://ftp.tapr.org/picsig/software

73,

- Steve

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Jeff King
> Sent: Wednesday, April 12, 2000 6:16 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] A-Compass uploaded to TAPR
>
>

> A-Compass
>
> By Jeff King WB8WKA
>
>
> This software is available only for non-commercial amateur radio
> or educational applications.   All
> other uses are prohibited.   This software may be modified only
> if the resulting code be made available
> publicly and the original author given credit.   Contact the
> author for information on commercial licenses.
> (c) Copyright 2000, Robert Jeffrey King.   All rights reserved.
>
> A-Compass is a Fluxgate compass adapter intended to work with
> APRS(tm of wb4apr) type applications
> in direction finding applications. It can work on the same serial
> port as a existing GPS.
> It does this by inserting standard NEMA compass bearing sentences
> into the "dead spots" between
> the standard GPS type sentences. In this way, you don't have to
> tie up a additional serial port.
>
> A WORK IN PROGRESS
>
> When I started this project, I had access to the Precision
> Navigation Vector 2X fluxgate compass.
> This is what many of you saw at Dayton 99. However, shortly after
> that, I had to return the compasse(s)
> to there owners (it was for a unrelated project) and now I have
> no way to test it. So instead of
> just letting the work fade away, I am releasing it to ARPSdom.
> Now if someone were
> to loan me a Vector 2X compass, I would finish it up. However,
> since I have no personal interest
> in APRS DF'ing, I can't justify spending the $49. But the
> project is more then 75% complete. All
> the Vector 2x routines are full debugged and working, the
> software just needs to be streamlined down
> into the format you see expressed in the schematic. I even have a
> wirewrap circuit made up for
> the schematic. The schematic is in both .gif and ORCAD format. No
> PCB has been done yet.
>
> Alll source code is done using CCS PCM C compiler. I made no
> attempt to clean anything up, like
> I said, this was unreleased code.
>
> I've uploaded this to the TAPR site under the name
> "a-compass2.zip" (please change this to
> a-compass.zip Steve..... I forgot to set image mode the first
> time I tried). I suspect the best
> place to put it would be in the PIC-E area. I'll let Steve Bible
> decide that.
>
> 73
>
> Jeff King wb8wka
>
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

36. [picsig] Re: A-Compass uploaded to TAPR

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 13 Apr 2000 11:00:22 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77260-2000.04.13-11.09.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Not sure if you saw this.

Many moons ago, I loaned the sprouls my Vector2X with the idea that they
would code an interface for it using the paralell port.

Seems to have not happened.

Since they don't seem to need it, you're welcome to use it.

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOPYLNoFlGDz1l6VWEQJQ0gCg/Gw1be9uDuWwlF6aCro+3XgwLncAoNFA
PMskM+LssGHLUa8kRni8jnMe
=I9AM
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

37. [picsig] Re: A-Compass uploaded to TAPR

From: dpfister <dpfister@grapevine.net>
Date: Fri, 14 Apr 2000 07:23:40 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77439-2000.04.14-07.20.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > -----Original Message-----
> > From: Jeff King
> > Sent: Wednesday, April 12, 2000 6:16 PM
> > To: TAPR PIC Development Special Interest Group
> > Subject: [picsig] A-Compass uploaded to TAPR
> > Now if someone were to loan me a Vector 2X compass, I would finish it up. However,
> > since I have no personal interest in APRS DF'ing, I can't justify spending the $49.

Any ideas where to get one of the compasses?

Don

--

[Signature File]
Name=Don Pfister KA0JLF
HABITAT SkyLab
(High Altitude Basic Investigation Testing And Tracking)
Email=dpfister@grapevine.net or donp@netlab.org

NOTE: I have been having trouble with my email: dpfister@kc.net,
it was suggested I use dpfister@grapevine.net it didn't
seem to have the problem. Please update you address books.
Thanks Don

http://www.netlab.org/habitat
http://www.kc.net/~dpfister
http://www.netlab.org/~donp
http://www.netlab.org:8888/ Visit the Lab in the Hobby wing. HABITAT being
built...

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

38. [picsig] Re: A-Compass uploaded to TAPR

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 14 Apr 2000 11:31:04 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77473-2000.04.14-11.40.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>Any ideas where to get one of the compasses?

Jameco carries them.

Are you an ISP? Tired of spam? We can help! www.spamwhack.com
A pre-emptive strike against spam!

http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOPdj6IFlGDz1l6VWEQKmAgCfYQlL5IPiRdw35tGW5Kao15RjJFcAoL6K
6itZ7kJufsPcnhQZJkULU+H6
=p0y/
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

39. [picsig] Re: A-Compass uploaded to TAPR

From: Jeff King <jeff@aerodata.net>
Date: Fri, 14 Apr 2000 13:22:54 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77485-2000.04.14-12.33.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes, as Dave said, Jameco.

I need to point out there are two versions of the compass. Either will work, but
the more expensive one has a self leveling gimble in it. If the compass will be anything
except level to the ground, you want to go with this one. But for development or
any application where you can assure the compass will be level, the $49 one is
fine. The self leveling one is (I think) $99.

Jameco sells both.

-Jeff

dpfister wrote:

> > > -----Original Message-----
> > > From: Jeff King
> > > Sent: Wednesday, April 12, 2000 6:16 PM
> > > To: TAPR PIC Development Special Interest Group
> > > Subject: [picsig] A-Compass uploaded to TAPR
> > > Now if someone were to loan me a Vector 2X compass, I would finish it up. However,
> > > since I have no personal interest in APRS DF'ing, I can't justify spending the $49.
>
> Any ideas where to get one of the compasses?
>
> Don
>
> --
>
> [Signature File]
> Name=Don Pfister KA0JLF
> HABITAT SkyLab
> (High Altitude Basic Investigation Testing And Tracking)
> Email=dpfister@grapevine.net or donp@netlab.org
>
> NOTE: I have been having trouble with my email: dpfister@kc.net,
> it was suggested I use dpfister@grapevine.net it didn't
> seem to have the problem. Please update you address books.
> Thanks Don
>
> http://www.netlab.org/habitat
> http://www.kc.net/~dpfister
> http://www.netlab.org/~donp
> http://www.netlab.org:8888/ Visit the Lab in the Hobby wing. HABITAT being
> built...
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] Aisin RX's/trackers.

From: Ron Graham <rongraham@magnet.com.au>
Date: Sat, 15 Apr 2000 07:23:27 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77561-2000.04.14-16.12.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I still have a few circuit boards left that will enable a reasonably
compact APRS tracker unit to be built .. Aisin RX mounts on one side of the
board, clone of the PIC-E is built on the other side.
 Can supply kit of parts + construction notes .. contact me for further info.

 Or, if anyone has a surplus Aisin RX, lets know what you want for it. I
know a couple of people wanting to build this device, but they don't have
the RX.

Ron, VK4BRG.
Regards, Ron.
RON GRAHAM ELECTRONICS,
PO Box 323, Sarina, Qld. 4737, Australia.
Phone (07) 4956 1155 International 61 7 4956 1155
e-mail   rongraham@magnet.com.au
Web page http://www.mackay.net.au/~ron

SPECIALISING IN DIRECTION FINDING EQUIPMENT.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] Re: Aisin RX's/trackers.

From: John Hansen <hansen@fredonia.edu>
Date: Fri, 14 Apr 2000 17:52:48 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77566-2000.04.14-16.51.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

My guess is that the shipping is sufficiently costly that it may not be
worth the trip, but how much would four of the boards cost (no parts, just
the boards)? Thanks,

John W2FS

At 07:23 AM 4/15/00 +1000, you wrote:
> I still have a few circuit boards left that will enable a reasonably
>compact APRS tracker unit to be built .. Aisin RX mounts on one side of the
>board, clone of the PIC-E is built on the other side.
> Can supply kit of parts + construction notes .. contact me for further info.
>
> Or, if anyone has a surplus Aisin RX, lets know what you want for it. I
>know a couple of people wanting to build this device, but they don't have
>the RX.
>
>Ron, VK4BRG.
>Regards, Ron.
>RON GRAHAM ELECTRONICS,
>PO Box 323, Sarina, Qld. 4737, Australia.
>Phone (07) 4956 1155 International 61 7 4956 1155
>e-mail   rongraham@magnet.com.au
>Web page http://www.mackay.net.au/~ron
>
>SPECIALISING IN DIRECTION FINDING EQUIPMENT.
>
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

42. [picsig] PIC-E packet interpretation

From: Lee810@aol.com
Date: Sat, 15 Apr 2000 21:35:17 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77792-2000.04.15-20.37.54--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have been testing a new version of code for the PIC-E GPS-e-2 software and
was curious if someone could interpret the bytes that are being received from
the PIC-E. Here is a sample of 35 packets that I captured with the Tripmate
(while stationary) connected to the PIC-E:

K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RTXV:'pJ\l '/
K0LEE-7*>WIDE5-5>T0RSXV:'pJ9l '/
K0LEE-7*>WIDE5-5>T0RSXP:`pJ3l-W'/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSXQ:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWY:'pJ7l"7'/
K0LEE-7*>WIDE5-5>T0RSWX:'pJ\l6d'/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWV:'pJ2l" '/
K0LEE-7*>WIDE5-5>T0RSWR:`pJ6l,D'/
K0LEE-7*>WIDE5-5>T0RSWR:'pJ8l"\'/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSVR:'pJPl@I'/
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l+D'/
K0LEE-7*>WIDE5-5>T0RSWV:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWT:`pJ2l+*'/
K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/
K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/LongEZ Aircraft Mobile; k0lee@amsat.org

The '/ just before the btext field is to identify the target as a small
aircraft. In looking in the APRS screen under the K0LEE-7 target, it shows
that I have received 35 packets and 15 tracking packets. Why aren't all the
packets tracking packets?

I also noticed that the plane icon on the screen turns to a generic set of
concentric red rings when the packets have only the 5 characters to describe
the target position. Does anyone know the significance of the extra
characters? Also, the VALID light turned on at packet 4 and stayed on
continuously after that.

Also, what is the significance of the T0RSWT character string?

I've been looking through the APRS spec, but the answers to the questions
asked here are not apparent from that document.

Thanks,

Lee Devlin, KØLEE
Greeley, CO
http://members.aol.com/lee810/ham.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

43. [picsig] Re: PIC-E packet interpretation

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 16 Apr 2000 06:54:02 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-77839-2000.04.16-01.00.14--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-77792-2000.04.15-20.37.54--Ian.Wade#care4free.net@lists.tap
r.org>, Lee810@aol.com writes
>I have been testing a new version of code for the PIC-E GPS-e-2 software and
>was curious if someone could interpret the bytes that are being received from
>the PIC-E. Here is a sample of 35 packets that I captured with the Tripmate
>(while stationary) connected to the PIC-E:
>
>K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org

[snip]

Hi Lee. Here is a decode of your packets:

~~~~~~
APRSDEC. APRS Packet Decoder
Version 0.1 (2 March 2000)
by Ian Wade, G3NRW (g3nrw@arrl.net)
Runtime=04-16-2000   06:13:43
Output file=f:\aprspix\protocol\pic.log

Record= 1
K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Old Mic-E Data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.76 mins N Message=M2:In Service
 Icon=**INVALID SYMBOL Overlay=L
Lon= 104 deg 46.26 minsW   Speed= 0 knots (0 mph) Course: 11 deg

----
Record= 2
K0LEE-7*>WIDE5-5>T0RTXV:'pJ\l '/
Old Mic-E Data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 24.86 mins N Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

Record= 3
K0LEE-7*>WIDE5-5>T0RSXV:'pJ9l '/
Old Mic-E Data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.86 mins N Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

Record= 4
K0LEE-7*>WIDE5-5>T0RSXP:`pJ3l-W'/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.80 mins N Message=M2:In Service
 Icon=Small Aircraft   Overlay=(none)
Lon= 104 deg 46.23 minsW   Speed= 1 knots (1 mph) Course: 359 deg

----
Record= 5
K0LEE-7*>WIDE5-5>T0RSXQ:`pJ3l '/
Current Mic-E data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.81 mins N Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

Record= 6
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
Current Mic-E data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.80 mins N Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

Record= 7
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.80 mins N Message=M2:In Service
 Icon=**INVALID SYMBOL Overlay=L
Lon= 104 deg 46.24 minsW   Speed= 0 knots (0 mph) Course: 11 deg

----
Record= 8
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
Current Mic-E data   APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.80 mins N Message=M2:In Service
~~~~~~

```
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 9
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.80 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 10
K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.80 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.24 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 11
K0LEE-7*>WIDE5-5>T0RSWY:'pJ7l"7'/
Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.79 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.27 minsW   Speed= 0 knots ( 0 mph)  Course: 227 deg

------------------------------------------------------------
Record= 12
K0LEE-7*>WIDE5-5>T0RSWX:'pJ\l6d'/
Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.64 minsW   Speed= 2 knots ( 2 mph)  Course: 272 deg

------------------------------------------------------------
Record= 13
K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 14
K0LEE-7*>WIDE5-5>T0RSWV:'pJ2l" '/
Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.76 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 204 deg

------------------------------------------------------------
Record= 15
K0LEE-7*>WIDE5-5>T0RSWR:`pJ6l,D'/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.72 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.26 minsW   Speed= 1 knots ( 1 mph)  Course: 240 deg

------------------------------------------------------------
Record= 16
K0LEE-7*>WIDE5-5>T0RSWR:'pJ8l"\'/LongEZ Aircraft Mobile; k0lee@amsat.org
Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.72 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.28 minsW   Speed= 0 knots ( 0 mph)  Course: 264 deg

------------------------------------------------------------
Record= 17
K0LEE-7*>WIDE5-5>T0RSVR:'pJPl@I'/
Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.62 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.52 minsW   Speed= 3 knots ( 3 mph)  Course: 245 deg

------------------------------------------------------------
Record= 18
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.
```

```
------------------------------------------------------------
Record= 19
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 20
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 21
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 22
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 23
K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.78 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 24
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 25
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.23 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 26
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 27
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 28
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.23 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 29
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
```

```
Lat=40 deg 23.77 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 30
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 31
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.23 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 32
K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 33
K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l+D'/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.77 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.22 minsW   Speed= 1 knots ( 1 mph)  Course: 140 deg

------------------------------------------------------------
Record= 34
K0LEE-7*>WIDE5-5>T0RSWV:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.76 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.24 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

------------------------------------------------------------
Record= 35
K0LEE-7*>WIDE5-5>T0RSWT:`pJ2l+*'/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.74 mins N  Message=M2:In Service
 Icon=Small Aircraft    Overlay=(none)
Lon= 104 deg 46.22 minsW   Speed= 1 knots ( 1 mph)  Course: 114 deg

------------------------------------------------------------
Record= 36
K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.74 mins N  Message=M2:In Service
Bad Information Field: <9 characters. Bailing out.

------------------------------------------------------------
Record= 37
K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/LongEZ Aircraft Mobile; k0lee@amsat.org
Current Mic-E data        APRS Path=Regular Digi (VIA) Path
Lat=40 deg 23.74 mins N  Message=M2:In Service
 Icon=**INVALID SYMBOL  Overlay=L
Lon= 104 deg 46.20 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```

>The '/ just before the btext field is to identify the target as a small
>aircraft. In looking in the APRS screen under the K0LEE-7 target, it shows
>that I have received 35 packets and 15 tracking packets. Why aren't all the
>packets tracking packets?

The basic problem is almost certainly not in the PIC-E output, but in the setup of the TNC receiving this data, or in the receiving software processing this data.

Between the colon : and the comment there should be *exactly* 9 characters,
starting with ` (grave/back quote) or ' (apostrophe).

The last two characters of these 9 should be '/ which specify the small aircraft
symbol.

11 of these records are valid: Nos 4, 11, 12, 14, 15, 16, 17, 19, 22, 33, 35.

The remaining records have less than 9 characters of data before the comment.
The missing characters are binary, non-printable ASCII characters, in the range
0x1d to 0x1f, or 0xff. Somewhere along the line in your receiving hardware/
software these binary characters were dropped. That's where you should look.

>
>I also noticed that the plane icon on the screen turns to a generic set of
>concentric red rings when the packets have only the 5 characters to describe
>the target position.

This is a bug in the receiving software. These plots should have been rejected
because they do not contain the required 9 bytes of data.

>Also, what is the significance of the T0RSWT character string?

This is the encoding of the latitude digits, message code, N/S/E/W indicators
and longitude offset bit. See the Mic-E chapter in the Protocol Spec for
details.

>
>I've been looking through the APRS spec, but the answers to the questions
>asked here are not apparent from that document.

I know, I know! I am now in the process of completely rewriting the Mic-E
chapter of the spec, as it isn't very clear in places.

Hope this helps.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+--+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
+--+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

44. [picsig] Re: PIC-E packet interpretation

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 16 Apr 2000 07:19:34 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77840-2000.04.16-01.20.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-77839-2000.04.16-01.00.14--Ian.Wade#care4free.net@l
ists.tapr.org>, Ian Wade <Ian.Wade@care4free.net> writes

>The missing characters are binary, non-printable ASCII characters, in the range
>0x1d to 0x1f, or 0xff.

Correction: that should read 0x1c to 0x1f, or 0xff.
                              ^

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--

```
+-----------------------------------------------------------------+
| APRS on 144.800  [IO91SX]         ~55km/35 miles NNW of London  |
|                     email: g3nrw@arrl.net                       |
|                                                                 |
| APRS PROTOCOL SPEC:   http://www.tapr.org/tapr/html/Faprswg.html|
+-----------------------------------------------------------------+

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

45. [picsig] Re: PIC-E packet interpretation

From: "Brent Hildebrand" <bhildebrand@earthlink.net>
Date: Sat, 15 Apr 2000 23:20:13 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77841-2000.04.16-01.21.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I get a little different results then Ian. While the icons do not appear to be valid, the Lat/Long all seem to be valid. Here is a jumbled look at the top 7 reports.

```
K0LEE-7  N40ø23.800' W104ø46.240' /L@160613z SPD=0 TRK=11 /Mic-E/M2/IN SERVICEongEZ Aircraft Mobile;
k0lee@amsat.org 2000/04/16 06:13:59 I:APMICE,APS
K0LEE-7>APMICE,APS:@160613z4023.80NL10446.24W/011/000/Mic-E/M2/IN SERVICEongEZ Aircraft Mobile;
k0lee@amsat.org
K0LEE-7  N40ø23.810' W104ø46.230' / @160613z SPD=0 TRK=11 /Mic-E/M2/IN SERVICE 2000/04/16 06:13:58
I:APMICE,APS K0LEE-7>APMICE,APS:@160613z4023.81N 10446.23W/011/000/Mic-E/M2/IN SERVICE
K0LEE-7  N40ø23.800' W104ø46.230' '/@160613z SPD=1.2 TRK=359 /Mic-E/M2/IN SERVICELongEZ Aircraft Mobile;
 k0lee@amsat.org 2000/04/16 06:13:58 I:APMICE,APS
K0LEE-7>APMICE,APS:@160613z4023.80N/10446.23W'359/001/Mic-E/M2/IN SERVICELongEZ Aircraft Mobile;
k0lee@amsat.org
K0LEE-7  N40ø23.860' W104ø46.290' / @160613z SPD=0 TRK=11 /Mic-E/M2/IN SERVICE 2000/04/16 06:13:58
I:APMICE,APS K0LEE-7>APMICE,APS:@160613z4023.86N 10446.29W/011/000/Mic-E/M2/IN SERVICE
K0LEE-7  N40ø24.860' W104ø46.640' / @160613z SPD=0 TRK=11 /Mic-E/M2/IN SERVICE 2000/04/16 06:13:57
I:APMICE,APS K0LEE-7>APMICE,APS:@160613z4024.86N 10446.64W/011/000/Mic-E/M2/IN SERVICE
K0LEE-7  N40ø23.760' W104ø46.260' /L@160613z SPD=0 TRK=11 /Mic-E/M2/IN SERVICEongEZ Aircraft Mobile;
k0lee@amsat.org 2000/04/16 06:13:56 I:APMICE,APS
K0LEE-7>APMICE,APS:@160613z4023.76NL10446.26W/011/000/Mic-E/M2/IN SERVICEongEZ Aircraft Mobile;
k0lee@amsat.org
```

```
----- Original Message -----
From: Ian Wade <Ian.Wade@care4free.net>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Saturday, April 15, 2000 10:54 PM
Subject: [picsig] Re: PIC-E packet interpretation


> In article <LYR14796-77792-2000.04.15-20.37.54--Ian.Wade#care4free.net@lists.tap
> r.org>, Lee810@aol.com writes
> >I have been testing a new version of code for the PIC-E GPS-e-2 software and
> >was curious if someone could interpret the bytes that are being received from
> >the PIC-E.  Here is a sample of 35 packets that I captured with the Tripmate
> >(while stationary) connected to the PIC-E:
> >
> >K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
>
> [snip]
>
> Hi Lee. Here is a decode of your packets:
>
> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
> APRSDEC. APRS Packet Decoder
> Version 0.1 (2 March 2000)
> by Ian Wade, G3NRW  (g3nrw@arrl.net)
> Runtime=04-16-2000   06:13:43
> Output file=f:\aprspix\protocol\pic.log
>
> ------------------------------------------------------------
> Record= 1
> K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.76 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.26 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 2
> K0LEE-7*>WIDE5-5>T0RTXV:'pJ\l '/
```

```
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 24.86 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 3
> K0LEE-7*>WIDE5-5>T0RSXV:'pJ9l '/
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.86 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 4
> K0LEE-7*>WIDE5-5>T0RSXP:`pJ3l-W'/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.80 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.23 minsW   Speed= 1 knots ( 1 mph)  Course: 359 deg
>
> ------------------------------------------------------------
> Record= 5
> K0LEE-7*>WIDE5-5>T0RSXQ:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.81 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 6
> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.80 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 7
> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.80 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.24 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 8
> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.80 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 9
> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.80 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 10
> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.80 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.24 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 11
> K0LEE-7*>WIDE5-5>T0RSWY:'pJ7l"7'/
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.79 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.27 minsW   Speed= 0 knots ( 0 mph)  Course: 227 deg
>
> ------------------------------------------------------------
> Record= 12
> K0LEE-7*>WIDE5-5>T0RSWX:'pJ\l6d'/
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.64 minsW   Speed= 2 knots ( 2 mph)  Course: 272 deg
>
```

```
> ------------------------------------------------------------
> Record= 13
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 14
> K0LEE-7*>WIDE5-5>T0RSWV:'pJ2l" '/
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.76 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 204 deg
>
> ------------------------------------------------------------
> Record= 15
> K0LEE-7*>WIDE5-5>T0RSWR:`pJ6l,D'/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.72 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.26 minsW   Speed= 1 knots ( 1 mph)  Course: 240 deg
>
> ------------------------------------------------------------
> Record= 16
> K0LEE-7*>WIDE5-5>T0RSWR:'pJ8l"\'/LongEZ Aircraft Mobile; k0lee@amsat.org
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.72 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.28 minsW   Speed= 0 knots ( 0 mph)  Course: 264 deg
>
> ------------------------------------------------------------
> Record= 17
> K0LEE-7*>WIDE5-5>T0RSVR:'pJPl@I'/
> Old Mic-E Data            APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.62 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.52 minsW   Speed= 3 knots ( 3 mph)  Course: 245 deg
>
> ------------------------------------------------------------
> Record= 18
> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 19
> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 20
> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 21
> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 22
> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.22 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 23
```

```
> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.78 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 24
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 25
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.23 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 26
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 27
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 28
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.23 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 29
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 30
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 31
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
>  Icon=**INVALID SYMBOL  Overlay=L
> Lon= 104 deg 46.23 minsW   Speed= 0 knots ( 0 mph)  Course: 11 deg
>
> ------------------------------------------------------------
> Record= 32
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> ------------------------------------------------------------
> Record= 33
> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l+D'/
> Current Mic-E data        APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.77 mins N  Message=M2:In Service
>  Icon=Small Aircraft    Overlay=(none)
> Lon= 104 deg 46.22 minsW   Speed= 1 knots ( 1 mph)  Course: 140 deg
>
```

> --
> Record= 34
> K0LEE-7*>WIDE5-5>T0RSWV:`pJ4l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data   APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.76 mins N Message=M2:In Service
> Icon=**INVALID SYMBOL Overlay=L
> Lon= 104 deg 46.24 minsW   Speed= 0 knots (0 mph) Course: 11 deg
>
> --
> Record= 35
> K0LEE-7*>WIDE5-5>T0RSWT:`pJ2l+*'/
> Current Mic-E data   APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.74 mins N Message=M2:In Service
> Icon=Small Aircraft   Overlay=(none)
> Lon= 104 deg 46.22 minsW   Speed= 1 knots (1 mph) Course: 114 deg
>
> --
> Record= 36
> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/
> Current Mic-E data   APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.74 mins N Message=M2:In Service
> Bad Information Field: <9 characters. Bailing out.
>
> --
> Record= 37
> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/LongEZ Aircraft Mobile; k0lee@amsat.org
> Current Mic-E data   APRS Path=Regular Digi (VIA) Path
> Lat=40 deg 23.74 mins N Message=M2:In Service
> Icon=**INVALID SYMBOL Overlay=L
> Lon= 104 deg 46.20 minsW   Speed= 0 knots (0 mph) Course: 11 deg
>
> ~~~~~~
>
>
>
>
> >The '/ just before the btext field is to identify the target as a small
> >aircraft. In looking in the APRS screen under the K0LEE-7 target, it shows
> >that I have received 35 packets and 15 tracking packets. Why aren't all the
> >packets tracking packets?
>
>
> The basic problem is almost certainly not in the PIC-E output, but in the setup
> of the TNC receiving this data, or in the receiving software processing this
> data.
>
> Between the colon : and the comment there should be *exactly* 9 characters,
> starting with ` (grave/back quote) or ' (apostrophe).
>
> The last two characters of these 9 should be '/ which specify the small aircraft
> symbol.
>
> 11 of these records are valid: Nos 4, 11, 12, 14, 15, 16, 17, 19, 22, 33, 35.
>
> The remaining records have less than 9 characters of data before the comment.
> The missing characters are binary, non-printable ASCII characters, in the range
> 0x1d to 0x1f, or 0xff. Somewhere along the line in your receiving hardware/
> software these binary characters were dropped. That's where you should look.
>
>
>
>
> >
> >I also noticed that the plane icon on the screen turns to a generic set of
> >concentric red rings when the packets have only the 5 characters to describe
> >the target position.
>
> This is a bug in the receiving software. These plots should have been rejected
> because they do not contain the required 9 bytes of data.
>
>
> >Also, what is the significance of the T0RSWT character string?
>
> This is the encoding of the latitude digits, message code, N/S/E/W indicators
> and longitude offset bit. See the Mic-E chapter in the Protocol Spec for
> details.
>
> >
> >I've been looking through the APRS spec, but the answers to the questions

> >asked here are not apparent from that document.
>
> I know, I know! I am now in the process of completely rewriting the Mic-E
> chapter of the spec, as it isn't very clear in places.
>
> Hope this helps.
>
>
> 73
> Ian, G3NRW
> Technical Editor, APRS Protocol Specification
>
> --
> +---+
> | APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
> | email: g3nrw@arrl.net |
> | |
> | APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
> +---+
>
> ---
> You are currently subscribed to picsig as: bhildebrand@earthlink.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

46. [picsig] Re: PIC-E packet interpretation

From: "Tj Johnston" <n4uyq@arrl.net>
Date: Sun, 16 Apr 2000 09:11:17 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77893-2000.04.16-08.11.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I could only find 9 valid compressed packets.

The first packet appears valid to the decoder, but it isnt., hence.. the
invalid symbol reported by others

Invalid ---> K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RTXV:'pJ\l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXV:'pJ9l '/
VALID ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ3l-W'/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXQ:`pJ3l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
VALID ---> K0LEE-7*>WIDE5-5>T0RSWY:'pJ7l"7'/
VALID ---> K0LEE-7*>WIDE5-5>T0RSWX:'pJ\l6d'/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
VALID ---> K0LEE-7*>WIDE5-5>T0RSWV:'pJ2l" '/
VALID ---> K0LEE-7*>WIDE5-5>T0RSWR:`pJ6l,D'/
VALID ---> K0LEE-7*>WIDE5-5>T0RSWR:'pJ8l"\'/LongEZ Aircraft Mobile;
k0lee@amsat.org
VALID ---> K0LEE-7*>WIDE5-5>T0RSVR:'pJPl@I'/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/

```
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
VALID ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l+D'/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWV:`pJ4l '/LongEZ Aircraft Mobile;
k0lee@amsat.org
VALID ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ2l+*'/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/
Invalid ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/LongEZ Aircraft Mobile;
k0lee@amsat.org


==============================================
Tj Johnston, N4UYQ                 ICQ#3134626
Hopewell, VA - Prince George Co. ARES/RACES
Eastern Virginia APRS Group (EVA) - Sec/Treas.
EVA Homepage: http://www.qsl.net/eva/
APRSdigi Homepage: www.qsl.net/n4uyq/aprsdigi.htm
==============================================



---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

47. [picsig] Re: PIC-E packet interpretation

From: John Hansen <hansen@fredonia.edu>
Date: Sun, 16 Apr 2000 09:17:14 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77894-2000.04.16-08.16.14--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
At 09:11 AM 4/16/00 -0400, you wrote:
>I could only find 9 valid compressed packets.
>
>The first packet appears valid to the decoder, but it isnt., hence.. the
>invalid symbol reported by others

Consider the possibility that RF is getting into your PIC-E.  There have
been a least a half dozen reports of this causing the type of problem that
you are having over the last year or so.   This is especially likely if you
are using an HT with a rubber duck antenna on the transmitter and it is in
the vicinity of the PIC-E.

John W2FS

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

48. [picsig] Re: PIC-E packet interpretation

From: Lee810@aol.com
Date: Sun, 16 Apr 2000 10:27:56 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77908-2000.04.16-09.28.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Thanks to those who decoded the packets.  I did read the APRS spec over
several times and am beginning to understand the format of the compressed
format more clearly now.

> The basic problem is almost certainly not in the PIC-E output, but in the
> setup
>  of the TNC receiving this data, or in the receiving software processing
this
>  data.
>
>  Between the colon : and the comment there should be *exactly* 9 characters,
>  starting with ` (grave/back quote) or ' (apostrophe).

This appears to be the case.  I switched over from my PK232MBX to my KPC3+
and have attached the results.  You can see the change where the callsign
changes from K0LEE-7*> to K0LEE-7>.  It swaps the positions of the PATH and
```

destination field. Apparently, the PK232 is swallowing one of the
unprintable information field characters, preventing the APRS for Windows
from decoding the symbol properly most of the time. The character in
question shows up as a box on my screen here, but in the APRS screen, it
showed up as an 'L' rotated -90 degrees.

K0LEE-7*>WIDE5-5>T0RSWW:`pJ6l '/
K0LEE-7*>WIDE5-5>T0RSWW:`pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7*>WIDE5-5>T0RSWW:'pJ6l '/
K0LEE-7>T0RSWV,WIDE5-5:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7>T0RSWV,WIDE5-5:'pJ6l '/
K0LEE-7>T0RSWV,WIDE5-5:'pJ6l '/
K0LEE-7>T0RSWV,WIDE5-5:'pJ6l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7>T0RSWV,WIDE5-5:'pJ6l '/
K0LEE-7>T0RSXR,WIDE5-5:'pJ6l '/
K0LEE-7>T0RSXS,WIDE5-5:'pJ3l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7>T0RSXT,WIDE5-5:'pJ4l '/
K0LEE-7>T0RSXP,WIDE5-5:'pJ8l '/
K0LEE-7>T0RSXQ,WIDE5-5:'pJ9l '/LongEZ Aircraft Mobile; k0lee@amsat.org
K0LEE-7>T0RSYS,WIDE5-5:'pJ=l '/
K0LEE-7>T0RSWY,WIDE5-5:'pJ7l '/
K0LEE-7>T0RSVY,WIDE5-5:`pJ4l!"'/LongEZ Aircraft Mobile; k0lee@amsat.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

49. [picsig] Re: PIC-E packet interpretation

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 16 Apr 2000 17:08:04 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77931-2000.04.16-11.09.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-77908-2000.04.16-09.28.46--Ian.Wade#care4free.net@l
ists.tapr.org>, Lee810@aol.com writes

>> The basic problem is almost certainly not in the PIC-E output, but in the
>> setup
>> of the TNC receiving this data, or in the receiving software processing
>this
>> data.
>>
>> Between the colon : and the comment there should be *exactly* 9 characters,
>> starting with ` (grave/back quote) or ' (apostrophe).
>
>This appears to be the case. I switched over from my PK232MBX to my KPC3+
>and have attached the results. You can see the change where the callsign
>changes from K0LEE-7*> to K0LEE-7>.

That's much better :-)) I'm glad you got it working.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

50. [picsig] Re: PIC-E packet interpretation

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Sun, 16 Apr 2000 13:47:11 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77944-2000.04.16-12.47.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

These are all Mic-E packets, not compressed pacekts...

Bob

On Sun, 16 Apr 2000, Tj Johnston wrote:

> I could only find 9 valid compressed packets.
>
> The first packet appears valid to the decoder, but it isnt., hence.. the
> invalid symbol reported by others
>
>
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RTXV:'pJ\l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXV:'pJ9l '/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ3l-W'/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXQ:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWY:'pJ7l"7'/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWX:'pJ\l6d'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWV:'pJ2l" '/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWR:`pJ6l,D'/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWR:'pJ8l"\'/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSVR:'pJPl@I'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l+D'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWV:`pJ4l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ2l+*'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
>
>
> ==
> Tj Johnston, N4UYQ   ICQ#3134626
> Hopewell, VA - Prince George Co. ARES/RACES
> Eastern Virginia APRS Group (EVA) - Sec/Treas.
> EVA Homepage: http://www.qsl.net/eva/
> APRSdigi Homepage: www.qsl.net/n4uyq/aprsdigi.htm
> ==
>
>
>
> ---
> You are currently subscribed to picsig as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

APRSdos REPLY/COMMENT:

Reply mail addr: wb4apr@amsat.org
US mail address: 115 old Farm Ct, Glen Burnie, MD 21060
See DAYTON97 HISTORY: http://web.usna.navy.mil/~bruninga/dayton.html
See Maryland APRS LIVE: http://web.usna.navy.mil/~bruninga/aprs.html
See GPS on ANY radio: http://www.tapr.org/tapr/html/mic-e.html

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

51. [picsig] Re: Aisin RX's/trackers.

From: Ron Graham <rongraham@magnet.com.au>
Date: Mon, 17 Apr 2000 07:44:29 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-77966-2000.04.16-16.33.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi John,
        Good to hear from you .. and thanks for the nice s/ware that we use.
Airmail post isn't too bad for smallish items.
Price of 4 boards + 1 copy of the paperwork = US$38. Airmail = US$7
Boards are a little expensive as I only had a small quantity made .. usual
story!!! Unit goes together quite well .. guy in Sydney built 10!!!
 My suggestion is just to send money (well wrapped) in an envelope if you
wish to go ahead.

Regards, Ron.

>My guess is that the shipping is sufficiently costly that it may not be
>worth the trip, but how much would four of the boards cost (no parts, just
>the boards)? Thanks,
>
>John W2FS
>
>
>At 07:23 AM 4/15/00 +1000, you wrote:
>> I still have a few circuit boards left that will enable a reasonably
>>compact APRS tracker unit to be built .. Aisin RX mounts on one side of the
>>board, clone of the PIC-E is built on the other side.
>> Can supply kit of parts + construction notes .. contact me for further info.
>>
>> Or, if anyone has a surplus Aisin RX, lets know what you want for it. I
>>know a couple of people wanting to build this device, but they don't have
>>the RX.
>>
>>Ron, VK4BRG.
>>Regards, Ron.
>>RON GRAHAM ELECTRONICS,
>>PO Box 323, Sarina, Qld. 4737, Australia.
>>Phone (07) 4956 1155 International 61 7 4956 1155
>>e-mail   rongraham@magnet.com.au
>>Web page http://www.mackay.net.au/~ron
>>
>>SPECIALISING IN DIRECTION FINDING EQUIPMENT.
>>
>>
>>---
>>You are currently subscribed to picsig as: john@hansen.net
>>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
>---
>You are currently subscribed to picsig as: rongraham@magnet.com.au
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

52. [picsig] Re: PIC-E packet interpretation

From: Tim Salo <salo@networkcs.com>
Date: Mon, 17 Apr 2000 19:19:15 -0500 (CDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Cc: aprssig@lists.tapr.org
Message-ID: <LYR6890-78222-2000.04.17-19.22.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> From: Lee810@aol.com
> Date: Sun, 16 Apr 2000 10:27:56 EDT
> Subject: [picsig] Re: PIC-E packet interpretation
>   [...]
> This appears to be the case. I switched over from my PK232MBX to my KPC3+
> and have attached the results. You can see the change where the callsign
> changes from K0LEE-7*> to K0LEE-7>. It swaps the positions of the PATH and
> destination field. Apparently, the PK232 is swallowing one of the
> unprintable information field characters, preventing the APRS for Windows
> from decoding the symbol properly most of the time. The character in
> question shows up as a box on my screen here, but in the APRS screen, it
> showed up as an 'L' rotated -90 degrees.
>   [...]

I don't have a PK-232 manual, but I did find an IDR-96 manual (an
AEA product that never saw the light of day) and a PK-12 manual.

The default value for the MFilter command on at least some AEA
products is $80, which "filters all characters above $7F and _all_
control-characters except (RETURN) ($0d), LF ($0A), and TAB ($09)."

The TAPR 1.1.8 manual says that MFilter defaults to none. Someone
might want to look this up in a Kantronics manual.

So, given that some Mic-E packets contain some unprintable ASCII characters
(0x1c, 0x1d, 0x1e, 0x1fx, depending on the location, speed, or heading
of the station) this seems to indicate that at least some AEA TNCs with
the default value for MFilter will not correctly pass some Mic-E packets
to the host.

o   Have I got this right?
o   Is this a well-known anomaly?
o   Do the various APRS software initialization files set MFilter,
        or set it for AEA TNCs? Should they?

You also observed that the output from the MONitor command is different
between AEA TNCs and Kantronics TNCs. I believe that these are the
two major variants of MONitor command output (from what I have seen
passed through APRServe).

-tjs

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

53. [picsig] Re: Aisin RX's/trackers.

From: Ron Graham <rongraham@magnet.com.au>
Date: Wed, 19 Apr 2000 06:35:23 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-78436-2000.04.18-15.24.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Apologies to the group .. message was meant to go privately to John, W2FS.
 Ron.

Hi John,
        Good to hear from you .. and thanks for the nice s/ware that we use.
Airmail post isn't too bad for smallish items.
>snip

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

54. [picsig] Re: Aisin RX's/trackers.

From: M□rten Persson <sm7syx@algonet.se>
Date: Wed, 19 Apr 2000 23:59:30 0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-78481-2000.04.18-17.03.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Ron,

fredag, 14 april 00, you wrote to me:

What type of 'special' parts needed ? Any preprogrammed stuff ?
If so please let me know.
Do you have any cards left, in that case I'm interessted in one card .
I have one AISIN card and I don't think I'll find more...
Please mail me price for one card shipped to Sweden and I'll mail you
the amount or if you accept cards...

/ Marten Persson -sm7syx

RG> I still have a few circuit boards left that will enable a reasonably
RG> compact APRS tracker unit to be built .. Aisin RX mounts on one side of the
RG> board, clone of the PIC-E is built on the other side.
RG> Can supply kit of parts + construction notes .. contact me for further info.

RG> Or, if anyone has a surplus Aisin RX, lets know what you want for it. I
RG> know a couple of people wanting to build this device, but they don't have
RG> the RX.

RG> Ron, VK4BRG.
RG> Regards, Ron.
RG> RON GRAHAM ELECTRONICS,
RG> PO Box 323, Sarina, Qld. 4737, Australia.
RG> Phone (07) 4956 1155 International 61 7 4956 1155
RG> e-mail   rongraham@magnet.com.au
RG> Web page http://www.mackay.net.au/~ron

RG> SPECIALISING IN DIRECTION FINDING EQUIPMENT.

RG> ---
RG> You are currently subscribed to picsig as: marten@linux.nu
RG> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

Best regards,
 Mårten   mailto:sm7syx@algonet.se

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

55. [picsig] Re: PIC-E packet interpretation

From: "Ted McArthur" <tmac4@uswest.net>
Date: Tue, 18 Apr 2000 20:15:52 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-78526-2000.04.18-21.16.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Were can I find out more about mic-e packets I built a pic-e and have not
been able to see the icon on the winaprs but I have some people say the do
see it I can see them with gispls. Is there something you have to do to make
winaprs read the mic-e packets.

-----Original Message-----
From: bounce-picsig-15464@lists.tapr.org
[mailto:bounce-picsig-15464@lists.tapr.org]On Behalf Of Bob Bruninga
Sent: Sunday, April 16, 2000 11:47 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] Re: PIC-E packet interpretation

These are all Mic-E packets, not compressed pacekts...

Bob

On Sun, 16 Apr 2000, Tj Johnston wrote:

> I could only find 9 valid compressed packets.
>
> The first packet appears valid to the decoder, but it isnt., hence.. the
> invalid symbol reported by others
>
>
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWV:'pJ6l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RTXV:'pJ\l '/

> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXV:'pJ9l '/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ3l-W'/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXQ:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSXP:`pJ4l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWY:'pJ7l"7'/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWX:'pJ\l6d'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWV:'pJ2l" '/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWR:`pJ6l,D'/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWR:'pJ8l"\'/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSVR:'pJPl@I'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWX:`pJ2l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ3l '/
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWW:`pJ2l+D'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWV:`pJ4l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
> VALID ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ2l+*'/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/
> Invalid ---> K0LEE-7*>WIDE5-5>T0RSWT:`pJ0l '/LongEZ Aircraft Mobile;
> k0lee@amsat.org
>
>
> ==
> Tj Johnston, N4UYQ   ICQ#3134626
> Hopewell, VA - Prince George Co. ARES/RACES
> Eastern Virginia APRS Group (EVA) - Sec/Treas.
> EVA Homepage: http://www.qsl.net/eva/
> APRSdigi Homepage: www.qsl.net/n4uyq/aprsdigi.htm
> ==
>
>
>
> ---
> You are currently subscribed to picsig as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

APRSdos REPLY/COMMENT:

Reply mail addr: wb4apr@amsat.org
US mail address: 115 old Farm Ct, Glen Burnie, MD 21060
See DAYTON97 HISTORY: http://web.usna.navy.mil/~bruninga/dayton.html
See Maryland APRS LIVE: http://web.usna.navy.mil/~bruninga/aprs.html
See GPS on ANY radio: http://www.tapr.org/tapr/html/mic-e.html

---
You are currently subscribed to picsig as: tmac4@uswest.net
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

56. [picsig] Re: PIC-E packet interpretation

From: Lee810@aol.com
Date: Tue, 18 Apr 2000 23:07:17 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-78539-2000.04.18-22.57.14--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In a message dated 4/18/00 8:18:52 PM Mountain Daylight Time,
tmac4@uswest.net writes:

> Were can I find out more about mic-e packets I built a pic-e and have not
> been able to see the icon on the winaprs but I have some people say the do
> see it I can see them with gispls. Is there something you have to do to
make
> winaprs read the mic-e packets.

I have seen a problem with my PK232 swallowing a byte on the packet and
causing the icon to become a generic circle of rings. It appears to be data
dependent, i.e. some packets decode fine, others do not.

On an earlier version of the GPS-e-2 program, my KPC3+ was not decoding the
packets. That problem went away when I upgraded to the latest version of
GPS-e-2 available on the TAPR website. The version that ships with the kit
is quite old.

If you need some help, just cut and paste the packets from the history file
and post it to this list and someone may be able to pinpoint the problem.

Lee Devlin, K0LEE
Greeley, CO Visit my PIC-E page at:
http://members.aol.com/lee810/pic-e.html

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

57. [picsig] Re: MX -614 relatively deaf?

From: "K.Hirschelmann" <k.hirschelmann@mainz.netsurf.de>
Date: Mon, 24 Apr 2000 00:20:06 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79460-2000.04.23-17.22.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi John

> This is addressed to those of you who have tried using the MX-614 for
> reception of packet. I've been working on a project here that
> involves packet reception. For testing purposes I've been using and
> MFJ TNC connected to an HT with a rubber duck as the data source.
> I'm getting 100% reception this way. We don't live in an area that
> has a lot of packet activity. Typically the strongest signals will
> get up to maybe s4 or s6 on my Yaesu 736 or alternatively, will be
> about half scale on my Alinco 590. However, the MFJ TNC has no
> trouble decoding most of these signals. The unit I built with an
> MX-614 doesn't seem to want to decode any of them. Yet it decodes UI
> packets from my station generated by the MJF with no problem. I've
> also tried having it receive packets from a Kantronics KPC-3 and it
> has no problem with those either. So I'm coming to the conclusion
> that the MX-614 may not be as sensitive as alternative modem
> chips. (Can anyone think of an alternative explanation?)
>
> I'm wondering if anyone else has had any experience like this?
> Recently the amateur world has been running in the direction of the
> 614 as THE chip to use for 1200 baud packet (including an article on
> a Baycom modem replacement in QST). I'm beginning to wonder if we
> shouldn't rethink this.

After the TCM3105 no longer was available, i also tried the MX614 (or
MX614). I found the input-voltage-range to be much more critical with
the new chip. Input-Levels accepted by the TCM3105 without problems,
caused bad ore no detection because they are probably already too high
for the MX.
Until today i haven't tried to find out the optimal level by using an
oszilloscope, but after modifying the MX 614-Input of my PIC-E, i could
improve it's practical reception capability a lot.

At first i decreased the input sensitivity by changing resistor R9 from
10 KOhm to 100KOhm. Secondly i added a serial capacitor 0.1uF within the
audio-input-line. This especially is necessary in case the connected
radio has any DC-Level on it's speaker-output and is spoiling the bias
of MX614-Input.

Would be interesting to compare a MX614-Decoder modified in this way
with those other typs of TNC.

73 de Klaus DJ7OO

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

58. [picsig] Re: MX -614 relatively deaf?

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 23 Apr 2000 17:18:07 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79461-2000.04.23-17.27.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>Would be interesting to compare a MX614-Decoder modified in this way
>with those other typs of TNC.

These types of chips are also very noise sensitive. Supply decoupling and
clean audio is a must.

- --
Are you an ISP? Tired of spam?
www.spamwhack.com A pre-emptive strike against spam!

Where's Dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOQOSv4FlGDz1l6VWEQIEnwCfYRp+cb30wtF3Za2UADcwwJKCoqoAoLW/
SIf9UnCSnUtDqnk/anbnjQ0y
=gCm+
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

59. [picsig] MX -614 relatively deaf?

From: John Hansen <john@hansen.net>
Date: Sun, 23 Apr 2000 14:30:38 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79417-2000.04.23-13.32.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi:

        This is addressed to those of you who have tried using the MX-614 for
reception of packet. I've been working on a project here that involves
packet reception. For testing purposes I've been using and MFJ TNC
connected to an HT with a rubber duck as the data source. I'm getting 100%
reception this way. We don't live in an area that has a lot of packet
activity. Typically the strongest signals will get up to maybe s4 or s6 on
my Yaesu 736 or alternatively, will be about half scale on my Alinco
590. However, the MFJ TNC has no trouble decoding most of these
signals. The unit I built with an MX-614 doesn't seem to want to decode
any of them. Yet it decodes UI packets from my station generated by the
MJF with no problem. I've also tried having it receive packets from a
Kantronics KPC-3 and it has no problem with those either. So I'm coming to
the conclusion that the MX-614 may not be as sensitive as alternative modem
chips. (Can anyone think of an alternative explanation?)

        I'm wondering if anyone else has had any experience like this? Recently
the amateur world has been running in the direction of the 614 as THE chip
to use for 1200 baud packet (including an article on a Baycom modem

replacement in QST). I'm beginning to wonder if we shouldn't rethink this.

        All ideas and suggestions are welcome.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

60. [picsig] Re: MX -614 relatively deaf?

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 23 Apr 2000 17:53:47 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79469-2000.04.23-18.04.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>Kantronics KPC-3 and it has no problem with those either. So I'm coming to
>the conclusion that the MX-614 may not be as sensitive as alternative modem
>chips. (Can anyone think of an alternative explanation?)

Have you put this on a spectrum analyzer?
IIRC, the KPC uses tones that are 100Hz off from the standard bell 202 tones.

I could take a look at this, but I don't have any MX-614 based gear here.

- --
Are you an ISP? Tired of spam?
www.spamwhack.com A pre-emptive strike against spam!

Where's Dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOQObG4FlGDz1l6VWEQLgYwCfYJUD/ssscw+V5vAWYobuAPmTc+8AnR1u
Q7J4CZuSenthA9rZCp5N8nfZ
=1eIc
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

61. [picsig] Maybe an answer on the MX-614

From: John Hansen <john@hansen.net>
Date: Sun, 23 Apr 2000 15:40:45 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79424-2000.04.23-14.40.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I dug out my January issue of QST to have a look at the modem based on the
614 and noticed that its audio input circuit was substantially more
involved than the one we put in the PIC-E. Then I got to thinking how and
why we used the input circuit that we used. Recall that our main purpose
for the audio input on the PIC-E was to use the energy detect circuit in
the 614. The two resistors in the input circuit in the PIC-E are selected
for a high level of gain ... about 10 times as high as that which is
recommended by the manufacturer. Aside from that we didn't worry at all
about impedence matching. When we found something that worked (in terms of
energy detection) we stopped looking any further into the matter. Thus the
circuit works great for energy detection, but not so great (I gather) for
doing the DEM work of the modem. Tomorrow I'll rebuild the input circuit
to be more in line with the manufacturer's recommendations and the article
in QST and see if that doesn't make a difference. I'll post the results.

In the meantime, if you are just using the PIC-E for transmitting data,
none of this affects you, but if you want to receive data with it, you may
want to think about some mods.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

62. [picsig] Update on the 614 situation

From: John Hansen <hansen@fredonia.edu>
Date: Mon, 24 Apr 2000 23:08:18 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79775-2000.04.24-22.09.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here is an update on my experiences with using the MX-614 for receiving packet. First, I have no test equipment that is appropriate for doing an analysis of how well the chip receives, so what follows is far less than precise. However, replacing the input resistor (the 10K which is R9 in the PIC-E) with a 100K resistor did improve things somewhat. Adding a .1 input capacitor did not make any difference for me, but that is probably due to the receiver I'm using. It is undoubtedly a good suggestion. At the same time I added a 100 pf cap in parallel with R8 because this was used in the QST schematic. I'm not certain whether this contributed to the improvement or not. I also tried building the input circuit used in the QST article in it's entirety, but did not notice that this improved things any (no worse though).

I'm not sure where to go at this point. I'm thinking about trying another demod chip (anyone had any design experience with the XR2211?) At this point I think I'll continue work on the prototype with the MX614 and see if it works any better in a circuit that is not based on wire-wrap.

I'm not sure I'd have noticed this if I lived in an environment that had a lot of full scale packet signals. My current circuit always decodes full scale signals and now sometimes decodes those that are S5. The MFJ still does quite a bit better.

Thanks for the suggestions.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

63. [picsig] Re: Update on the 614 situation

From: Jeff King <jeff@aerodata.net>
Date: Mon, 24 Apr 2000 23:45:56 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79783-2000.04.24-22.48.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> I'm not sure where to go at this point. I'm thinking about trying another
> demod chip (anyone had any design experience with the XR2211?) At this
> point I think I'll continue work on the prototype with the MX614 and see if
> it works any better in a circuit that is not based on wire-wrap.

Just tap off the XR2211 in the MFJ to test things... that way you can narrow it down to your TNC code or the actual modem chip without having to build anything. Once your KISS TNC code is spitting out the same thing, every time, as the MFJ running in KISS mode, then you know any other issues are the modem chip.

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

64. [picsig] Re: Update on the 614 situation

From: John Hansen <hansen@fredonia.edu>
Date: Tue, 25 Apr 2000 16:24:55 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79958-2000.04.25-15.24.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Jeff, this helped clarify things. When I opened the MFJ up I was
pleasantly surprised to find that all the chips were socketed. Thus, if
necessary, I could rip off the XR2211 for other purposes. Anyway, I hooked
it up as you suggested and at the same time hooked up a serial cable to the
MFJ so that I could watch the packets coming in through two windows at the
same time to see what was being decoded by each. The XR2211 works about
the same as the MX 614 after making the resistor change. I found most of
the packets that were being received here were not being decoded by either
unit (granted, they are weak). Loud packets were decoded by both and then
I focused on the medium strength packets that had concerned me before. I
found that they were all coming from just one station. About 80% of the
time the MFJ decoded them, but it missed some too. My unit wasn't decoding
any of them. This was with both units being fed off the XR2211 demod
chip. I conclude that my decoding algorithm isn't working as well as the
TAPR-2 (maybe not catching on to the flags fast enough?) but all of this is
related to transmission from only one station, so I don't know what to make
of it.

The bottom line here, I think, is that if you are planning to use your
PIC-E for receiving packet, swap out R9 for a 100k resistor. Short of
moving to a location where there is actually some packet activity, I'm not
sure there is much hope for me!

John W2FS

Just tap off the XR2211 in the MFJ to test things... that way you can narrow it
>down to your TNC code or the actual modem chip without having to build
>anything. Once your KISS TNC code is spitting out the same thing, every time,
>as the MFJ running in KISS mode, then you know any other issues are the
>modem chip.
>
>-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

65. [picsig] Re: Update on the 614 situation

From: Jeff King <jeff@aerodata.net>
Date: Tue, 25 Apr 2000 17:21:22 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79970-2000.04.25-16.22.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Hansen wrote:

> About 80% of the
> time the MFJ decoded them, but it missed some too. My unit wasn't decoding
> any of them. This was with both units being fed off the XR2211 demod
> chip.

Yes, but any radio path, level, twist issues are the same for both digital decode
paths, so in theory they should decode the same.

> I conclude that my decoding algorithm isn't working as well as the
> TAPR-2 (maybe not catching on to the flags fast enough?) but all of this is
> related to transmission from only one station, so I don't know what to make
> of it.

The only part of the AX.25 spec that really is not defined very well is TXD.
Should TXD be flag chars or 0x55/0xAA (alternating 1's and 0's)? The
answer is it can be either, and has been in different flavors of TNC's over
the years. So, your code should catch the first flag that is followed by a
non-flag as the start of the frame and not depend on a series of flag chars
at all.

BTW, the TAPR TNC2 is not very fast, I'm sure the PIC could run rings
around it.... I think the divide down on the Z80 makes it quite a bit slower...
plus its at a 2.4mhz clock (or 4.9 in the newer ones). It does have a SIO chip
in it so that may help things.

> Short of
> moving to a location where there is actually some packet activity, I'm not
> sure there is much hope for me!

Next time there is a band open, hook up a cassette recorder and make yourself

a test tape.

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

66. [picsig] Re: Update on the 614 situation

From: John Hansen <hansen@fredonia.edu>
Date: Tue, 25 Apr 2000 20:40:01 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-79995-2000.04.25-19.39.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>The only part of the AX.25 spec that really is not defined very well is TXD.
>Should TXD be flag chars or 0x55/0xAA (alternating 1's and 0's)? The
>answer is it can be either, and has been in different flavors of TNC's over
>the years. So, your code should catch the first flag that is followed by a
>non-flag as the start of the frame and not depend on a series of flag chars
>at all.

The AX.25 spec does call for at least 5 flags (I assume regardless of what
it is sending for a TXD) before the frame starts. To your knowledge do
any of these TNC's use fewer than 5 flags? My code requires at least 3 in
a row to work. The MX-614 generates random 1's and 0's when it's not
receiving anything (I found today that the XR2211 does the same). I've
been using software DCD so I could run the squelch full open and when I
only look for the 1 flag I get false flags from time to time on the 614's
random 1's and 0's.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

67. [picsig] Re: Update on the 614 situation

From: John Hansen <hansen@fredonia.edu>
Date: Tue, 25 Apr 2000 20:54:58 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80000-2000.04.25-19.54.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ok, Ok, Jeff, you are correct. I changed my code so that it only requires
one flag to trigger a packet. Now the DCD light flickers a lot more, but
it decodes that one station that was decoding on the MFJ but not on my
device. But, But But....the spec does say 5 flags! Anyway, I think the
case is now closed, this seems to be working as well as the MFJ
now. Thanks for the help!

John W2FS

At 08:40 PM 4/25/00 -0400, you wrote:

>>The only part of the AX.25 spec that really is not defined very well is TXD.
>>Should TXD be flag chars or 0x55/0xAA (alternating 1's and 0's)? The
>>answer is it can be either, and has been in different flavors of TNC's over
>>the years. So, your code should catch the first flag that is followed by a
>>non-flag as the start of the frame and not depend on a series of flag chars
>>at all.
>
>The AX.25 spec does call for at least 5 flags (I assume regardless of what
>it is sending for a TXD) before the frame starts. To your knowledge do
>any of these TNC's use fewer than 5 flags? My code requires at least 3 in
>a row to work. The MX-614 generates random 1's and 0's when it's not
>receiving anything (I found today that the XR2211 does the same). I've
>been using software DCD so I could run the squelch full open and when I
>only look for the 1 flag I get false flags from time to time on the 614's
>random 1's and 0's.
>

>John W2FS
>
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

68. [picsig] Re: Update on the 614 situation

From: Tim Salo <salo@networkcs.com>
Date: Tue, 25 Apr 2000 19:57:33 -0500 (CDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80001-2000.04.25-19.58.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Date: Tue, 25 Apr 2000 20:40:01 -0400
> From: John Hansen <hansen@fredonia.edu>
> Subject: [picsig] Re: Update on the 614 situation
>   [...]
> The AX.25 spec does call for at least 5 flags (I assume regardless of what
> it is sending for a TXD) before the frame starts. ...
>   [...]

John,

I might have been asleep, but this doesn't sound right. Can you provide
a pointer to the relevant paragraph?

AX.25 2.0 says:

        2.2.1 Flag Field

        The flag field is one octet long. Since the flag is used to
        delimit frames, it occurs at both the beginning and end of each
        frame. Two frames may share one flag, which would denote the end
        of the first frame, and the start of the next frame. ...

(Not that it matters, but section 3.1 of AX.25 V2.2 says the same thing,
but because it is a PDF file, I can't copy and paste it.)

-tjs

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

69. [picsig] Re: Update on the 614 situation

From: Jim White <jim@coloradosatellite.com>
Date: Tue, 25 Apr 2000 19:04:41 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80002-2000.04.25-20.05.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,
In my experience TNCs send flags during the TXD period. Since flags are
the AX.25 framing character this means decode software has to ignore all
flags until a non flag is received, then go into a state machine decode
process to receive characters and look for a valid frame. In the NEC 72001
SCC chip used in the Microsats (and many others after), the chip itself,
when put into HDLC mode, handles that filtering. It only generages an
interrupt and starts passing characters to the CPU when a valid start of
frame sequence is received.
jw

At 08:40 PM 04/25/2000 -0400, you wrote:

>>The only part of the AX.25 spec that really is not defined very well is TXD.
>>Should TXD be flag chars or 0x55/0xAA (alternating 1's and 0's)? The
>>answer is it can be either, and has been in different flavors of TNC's over
>>the years. So, your code should catch the first flag that is followed by a
>>non-flag as the start of the frame and not depend on a series of flag chars
>>at all.
>
>The AX.25 spec does call for at least 5 flags (I assume regardless of what

>it is sending for a TXD) before the frame starts. To your knowledge do
>any of these TNC's use fewer than 5 flags? My code requires at least 3 in
>a row to work. The MX-614 generates random 1's and 0's when it's not
>receiving anything (I found today that the XR2211 does the same). I've
>been using software DCD so I could run the squelch full open and when I
>only look for the 1 flag I get false flags from time to time on the 614's
>random 1's and 0's.
>
>John W2FS
>
>
>---
>You are currently subscribed to picsig as: jim@coloradosatellite.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

70. [picsig] Re: Update on the 614 situation

From: Tim Salo <salo@networkcs.com>
Date: Tue, 25 Apr 2000 20:07:56 -0500 (CDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80004-2000.04.25-20.09.05--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I think Jeff said (I tossed the original mail):

>The only part of the AX.25 spec that really is not defined very well is TXD.
>Should TXD be flag chars or 0x55/0xAA (alternating 1's and 0's)? The
>answer is it can be either, and has been in different flavors of TNC's over
>the years. ...

I think Jeff and I have disagreed about this before, but I claim the
relevant paragraph is (from AX.25 V2.0):

        2.2.11 Interframe Time Fill
        Whenever it is necessary for a DXE to keep its transmitter on while
        not actually sending frames, the time between frames should be
        filled with contiguous flags.

-tjs

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

71. [picsig] Re: Update on the 614 situation

From: John Hansen <hansen@fredonia.edu>
Date: Tue, 25 Apr 2000 21:33:17 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80009-2000.04.25-20.32.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 08:07 PM 4/25/00 -0500, you wrote:
>I think Jeff and I have disagreed about this before, but I claim the
>relevant paragraph is (from AX.25 V2.0):
>
>   2.2.11 Interframe Time Fill
>   Whenever it is necessary for a DXE to keep its transmitter on while
>   not actually sending frames, the time between frames should be
>   filled with contiguous flags.
>
>-tjs

Yeah, I had read that too and taken it literally. At 1200 baud each flag
takes about 6.7 ms., so even if you do a txdelay as short as 5, that should
give one at least seven flags to play with. On the matter of five flags, I
could swear I had read that. I hadn't worried about it much since when I
was writing transmit code I was filling the txdelay with flags and it was
always long enough to give me plenty of flags. Now going back and looking
at the spec, I can't find it. Maybe I was dreaming, but I could swear I
read that somewhere. Perhaps I made the calculation above and remembered
that as being at least 5 flags, but I don't think so. Anyway, I can't find
it now.

One thing I have established here, and that is regardless of whether you

are right that the spec is clear or Jeff is right that it's not, it is
clear that at least some manufacturers are ignoring this and not filling
the TXD with flags. Now that I've dropped back to only looking for one
flag, the data is flying across my screen (at least from the couple of
stations I can copy at all). I'm quite certain at this point that the
MX-614 is working properly.

Thanks to everyone for their assistance on this.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

72. [picsig] Re: Update on the 614 situation

From: Jeff King <jeff@aerodata.net>
Date: Tue, 25 Apr 2000 22:32:59 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80015-2000.04.25-21.32.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Tim Salo wrote:

> I think Jeff said (I tossed the original mail):
>
> >The only part of the AX.25 spec that really is not defined very well is TXD.
> >Should TXD be flag chars or 0x55/0xAA (alternating 1's and 0's)? The
> >answer is it can be either, and has been in different flavors of TNC's over
> >the years. ...
>
> I think Jeff and I have disagreed about this before, but I claim the
> relevant paragraph is (from AX.25 V2.0):
>
>   2.2.11 Interframe Time Fill
>   Whenever it is necessary for a DXE to keep its transmitter on while
>   not actually sending frames, the time between frames should be
>   filled with contiguous flags.

No, I don't think we disagree, look at the language.... it says time between frames, not the
beginning of the first fame. Or more to the point, not everyone agreed as I know some TNC's
were using 0x55/0xAA for TXD at one point.... they might have been the early TNC's, but their
TXD's "sounded" alot different then most. Sorry, I don't know the maker, just that some where
doing it. I think Byron actually ran across some of them using his Peeka Packet monitor (or whatever he
called that)

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

73. [picsig] Re: Update on the 614 situation

From: Derek Lassen <kn6td@clubnet.net>
Date: Tue, 25 Apr 2000 21:30:31 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80037-2000.04.25-23.34.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 07:57 PM 4/25/00 -0500, you wrote:
> > Date: Tue, 25 Apr 2000 20:40:01 -0400
> > From: John Hansen <hansen@fredonia.edu>
> > Subject: [picsig] Re: Update on the 614 situation
> >   [...]
> > The AX.25 spec does call for at least 5 flags (I assume regardless of what
> > it is sending for a TXD) before the frame starts. ...
> >   [...]
>
>John,
>
>I might have been asleep, but this doesn't sound right. Can you provide
>a pointer to the relevant paragraph?
>
>AX.25 2.0 says:
>
>   2.2.1 Flag Field

>
>   The flag field is one octet long. Since the flag is used to
>   delimit frames, it occurs at both the beginning and end of each
>   frame. Two frames may share one flag, which would denote the end
>   of the first frame, and the start of the next frame. ...
>
>(Not that it matters, but section 3.1 of AX.25 V2.2 says the same thing,
>but because it is a PDF file, I can't copy and paste it.)

Here it is (cut and pasted)
The flag field is one octet long. Because the flag delimits frames, it
occurs at both the beginning and end of
each frame. Two frames may share one flag, which would denote the end of
the first frame and the start of the
next frame. A flag consists of a zero followed by six ones followed by
another zero, or 01111110 (7E hex). As
a result of bit stuffing (see Section 3.6), this sequence is not allowed to
occur anywhere else inside a complete
frame.

>-tjs
>
>---
>You are currently subscribed to picsig as: kn6td@clubnet.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

74. [picsig] MIC Mute on PIC-E Transmit ?

From: "James A. Martin Jr." <tapr@jmartin.net>
Date: Wed, 26 Apr 2000 22:18:02 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80116-2000.04.26-10.19.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Siggers,
        Has anyone tackled the problem of not muting / attenuating the microphone
audio when the PIC-E transmits? If so, could you provide the schematic or
description of the modification.

I didn't think this would be a problem at first, but it appears the
environment one of my PIC-Es will be in will have too much background noise
and the radios are used for voice communication also.

Thanks in advance,

James M.
KD5HAD

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

75. [picsig] Re: Update on the 614 situation

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 26 Apr 2000 15:18:58 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80161-2000.04.26-17.20.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 25 Apr 2000, Jeff King wrote:

> beginning of the first fame. Or more to the point, not everyone agreed as I know some TNC's
> were using 0x55/0xAA for TXD at one point.... they might have been the early TNC's, but their
> TXD's "sounded" alot different then most. Sorry, I don't know the maker, just that some where
> doing it. I think Byron actually ran across some of them using his Peeka Packet monitor (or whatever
he
> called that)

I ran into these differences in '85 when I was decoding packets with
a 6803 and an XR2211. If I recall correctly some were sending flags
and some were sending 0x00 bytes. I think the GLB was sending all
0's, but I can't remember for sure anymore. All 0's makes a nice
square wave that is easy to sync to.

The TNC's that were on the air when I was doing this were GLB's
and AEA's I think. Can't remember if there was a TAPR-1 or TAPR-2
in the town at that time.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

76. [picsig] Wanted: telnet client

From: Ian Wade <Ian.Wade@care4free.net>
Date: Thu, 27 Apr 2000 07:38:33 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80245-2000.04.27-01.40.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For testing some new APRS software, I need a Win95 telnet client that:

a. will save all dialog to disk

b. will not line wrap or truncate at 80 characters

c. will not drop any non-printing ASCII characters in the range 0x00 to 0x7f.

Pointer(s) anyone?

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

77. [picsig] Re: Wanted: telnet client

From: "Byon Garrabrant" <byon@mail.com>
Date: Thu, 27 Apr 2000 00:02:24 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80297-2000.04.27-10.58.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 27 Apr 00, at 7:38, Ian Wade wrote:

> For testing some new APRS software, I need a Win95 telnet client that:
>
> a. will save all dialog to disk
>
> b. will not line wrap or truncate at 80 characters
>
> c. will not drop any non-printing ASCII characters in the range 0x00 to
> 0x7f.
>
> Pointer(s) anyone?
>
>

I'm very happy with Tera Term, available at most Winsock sites
(tucows.com, winfiles.com). I originally got it because it could
record and playback streams of all 256 characters. Great logging
features, and works with serial and tcp/ip.

Byon
_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

78. [picsig] Re: Wanted: telnet client

From: Ian Wade <Ian.Wade@care4free.net>
Date: Thu, 27 Apr 2000 21:44:08 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80327-2000.04.27-15.45.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-80297-2000.04.27-10.58.26--Ian.Wade#care4free.net@l
ists.tapr.org>, Byon Garrabrant <byon@mail.com> writes
>
>I'm very happy with Tera Term, available at most Winsock sites
>(tucows.com, winfiles.com). I originally got it because it could
>record and playback streams of all 256 characters. Great logging
>features, and works with serial and tcp/ip.

Magic! Exactly what I was looking for. Many thanks Byon.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

79. [picsig] Re: Update on the 614 situation

From: Jeff King <jeff@aerodata.net>
Date: Thu, 27 Apr 2000 16:59:12 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80329-2000.04.27-15.59.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Curt Mills, WE7U" wrote:

> On Tue, 25 Apr 2000, Jeff King wrote:
>
> > beginning of the first fame. Or more to the point, not everyone agreed as I know some TNC's
> > were using 0x55/0xAA for TXD at one point.... they might have been the early TNC's, but their
> > TXD's "sounded" alot different then most. Sorry, I don't know the maker, just that some where
> > doing it. I think Byron actually ran across some of them using his Peeka Packet monitor (or whatever
 he
> > called that)
>
> I ran into these differences in '85 when I was decoding packets with
> a 6803 and an XR2211. If I recall correctly some were sending flags
> and some were sending 0x00 bytes. I think the GLB was sending all
> 0's, but I can't remember for sure anymore. All 0's makes a nice
> square wave that is easy to sync to.

When you "NRZI" a 0x00, it turns into a square wave (either a 0x55 or
0xAA). The VANCOUVER protocol (a TNC protocol that predated AX.25)
did define TXD as 0x00, which when put on the air (through NRZI) was
that nice square wave you mentioned. As there was some
debate as to what TXD really was supposed to be, it would suprise me if some
chose 0x00 (then NRZI it to 0x55) over 0x7e.

> The TNC's that were on the air when I was doing this were GLB's
> and AEA's I think. Can't remember if there was a TAPR-1 or TAPR-2
> in the town at that time.

Yeap, these are earlier ones but it might be noted, they both were derived from
the TAPR designs (GLB from TNC2, early AEA from TNC1 and PK-80 from
TNC-2).

73

Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

80. [picsig] 12 by 4 LCD

From: Derek Lassen <kn6td@clubnet.net>
Date: Thu, 27 Apr 2000 16:45:53 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80345-2000.04.27-18.48.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Anybody interested in a source of those 12 char by 4 row, 5 by 7 matrix and
Icons LCD that is on some cell phones?

They're $12.50

See http://www.flat-panel.com/character.htm

Byon:
How about an AX.25 snooper...

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

81. [picsig] Re: 12 by 4 LCD

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 28 Apr 2000 10:02:46 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80435-2000.04.28-10.03.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Derek Lassen wrote:
>
> Anybody interested in a source of those 12 char by 4 row, 5 by 7 matrix and
> Icons LCD that is on some cell phones?
>
> They're $12.50
>
> See http://www.flat-panel.com/character.htm

Hi Derek,

With a little modification of the code, I think I could get the HamHUD
display to fit on one of these. I'll have to get a couple and try it,
thanks.

73,

Steve Bragg KA9MVA

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
HamHUD APRS Mobile! http://www.qsl.net/ka9mva/hamhud

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

82. [picsig] Re: MX-614 relatively deaf?

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Fri, 28 Apr 2000 17:59:43 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80511-2000.04.28-17.01.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I modified my PIC-E to make the two voltage divider resistors equal.
Sorry, I'm on the road right now, so I couldn't tell you which values I
used. But, it solved my hearing problem that I was having with a
HTX202. It had very little dynamic range, compared to a "normal"
tnc-2. Now that the equal resistors have lowered the MX-614's input
amplifier gain, it seems to handle a much better dynamic range, but
still not as good as say a 1270.

Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

83. [picsig] PIC16F87x Async Serial Loader

From: Steve Bragg <steveb@c2-tech.com>
Date: Sat, 29 Apr 2000 09:43:55 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80625-2000.04.29-09.46.35--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Guys,

I have just finished testing a code loader for the PIC16F87x, that will
load code and EEPROM data through the PIC's serial port. This thing is
used in my HamHUD mobile APRS device.

I am making the loader available to anyone who wants to use it.

The thing consists of two parts:

- PIC-resident loader program
- Downloader program, running on a PC in DOS.

The PIC-resident part is very, very simplistic. Your main PIC program
has to jump to the loader when it is desired to download new firmware.
(The loader is always resident in the last 103 locations of program
memory, at address $1F98) The loader also depends on the main PIC
program having set up the PIC serial port. From that point on, the
loader is completely self-contained, downloading code and EEPROM data to
the PIC until a reset occurs.

The PIC-resident loader is written in assembly for compatibility (all
PIC C compilers can include in-line assembly), and uses only one byte of
RAM while in operation. It consumes no resources besides the serial
port. No handshaking lines of any kind are used, as the protocol does a
byte-for-byte handshake.

The PC side program, DL.exe, is written in C on a freeware compiler,
Pacific C from Hi-Tech Software (htsoft.com). It uses
lowest-common-denominator serial routines, so the downloader will even
run on an original IBM PC. The source code is included.

The PC program is able to download Intel hex files (generated by MPASM
and other PIC tools) to the PIC16F87x. Since the protocol between the
PC and PIC is so intensive, and the flash takes some time to "burn", the
download process is fairly slow (3 mins at 4800 baud). Still, it beats
opening a device for firmware upload.

Under certain circumstances (contact me), the loader can even load a new
version of itself.

The zipfile containing both the PIC and PC sides (source and EXE) is
available at:

http://www.qsl.net/ka9mva/KA9MVA_PIC16F87x_loader_0996.zip

It's only 18KB long. Anyone who is interested and is authorized to do
so is welcome to put this up on the TAPR site.

Enjoy.

73,

Steve Bragg KA9MVA
--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
Nine East Fourth St.

Tulsa, OK 74055
http://www.c2-tech.com/~steveb

Find me with APRS! http://map.findu.com/ka9mva-6

"#define QUESTION ((2b) || !(2b))"
    - Shakespeare

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

84. [picsig] RE: PIC16F87x Async Serial Loader

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Sat, 29 Apr 2000 13:03:10 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-80645-2000.04.29-12.02.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Super Job Steve

Sure wish you were into the AVR ;)

ALOHA
AH6LS

> ----------
> From: Steve Bragg[SMTP:steveb@c2-tech.com]
> Reply To: TAPR PIC Development Special Interest Group
> Sent: Saturday, 29 April, 2000 10:43 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] PIC16F87x Async Serial Loader
>
> Guys,
>
> I have just finished testing a code loader for the PIC16F87x, that will
> load code and EEPROM data through the PIC's serial port. This thing is
> used in my HamHUD mobile APRS device.
>
> I am making the loader available to anyone who wants to use it.
>
> The thing consists of two parts:
>
> - PIC-resident loader program
> - Downloader program, running on a PC in DOS.
>
> The PIC-resident part is very, very simplistic. Your main PIC program
> has to jump to the loader when it is desired to download new firmware.
> (The loader is always resident in the last 103 locations of program
> memory, at address $1F98) The loader also depends on the main PIC
> program having set up the PIC serial port. From that point on, the
> loader is completely self-contained, downloading code and EEPROM data to
> the PIC until a reset occurs.
>
> The PIC-resident loader is written in assembly for compatibility (all
> PIC C compilers can include in-line assembly), and uses only one byte of
> RAM while in operation. It consumes no resources besides the serial
> port. No handshaking lines of any kind are used, as the protocol does a
> byte-for-byte handshake.
>
> The PC side program, DL.exe, is written in C on a freeware compiler,
> Pacific C from Hi-Tech Software (htsoft.com). It uses
> lowest-common-denominator serial routines, so the downloader will even
> run on an original IBM PC. The source code is included.
>
> The PC program is able to download Intel hex files (generated by MPASM
> and other PIC tools) to the PIC16F87x. Since the protocol between the
> PC and PIC is so intensive, and the flash takes some time to "burn", the
> download process is fairly slow (3 mins at 4800 baud). Still, it beats
> opening a device for firmware upload.
>
> Under certain circumstances (contact me), the loader can even load a new
> version of itself.
>
> The zipfile containing both the PIC and PC sides (source and EXE) is
> available at:
>
> http://www.qsl.net/ka9mva/KA9MVA_PIC16F87x_loader_0996.zip
>

> It's only 18KB long. Anyone who is interested and is authorized to do
> so is welcome to put this up on the TAPR site.
>
> Enjoy.
>
> 73,
>
> Steve Bragg KA9MVA
> --
> Steve Bragg KA9MVA, RF Engineer
> C2 Technologies, Inc.
> Nine East Fourth St.
> Tulsa, OK 74055
> http://www.c2-tech.com/~steveb
>
> Find me with APRS! http://map.findu.com/ka9mva-6
>
> "#define QUESTION ((2b) || !(2b))"
>   - Shakespeare
>
> ---
> You are currently subscribed to picsig as: asadowski@ncshp.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

May 2000

Original source file: picsig.0005
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0005

1. [picsig] RE: PIC16F87x Async Serial Loader

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Mon, 01 May 2000 10:18:18 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81040-2000.05.01-10.18.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Sadowski, Allan" wrote:
>
> Super Job Steve
>
> Sure wish you were into the AVR ;)
>
> ALOHA
> AH6LS

Thanks.

Know what? If somebody could write the AVR side of the loader program,
I believe this would work for the AVR as well. Any takers? I'll send
protocol details privately.

73,

Steve

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] RE: PIC16F87x Async Serial Loader

From: David VanHorn <dvanhorn@cedar.net>
Date: Mon, 01 May 2000 13:48:12 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81084-2000.05.01-13.59.17--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>Know what? If somebody could write the AVR side of the loader program,
>I believe this would work for the AVR as well. Any takers? I'll send
>protocol details privately.

Well... I do write AVR code for a living, and I just got my IDE update to
fix my ICE problem. :)

- --
Are you an ISP? Tired of spam?
www.spamwhack.com A pre-emptive strike against spam!

Where's Dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA/AwUBOQ3tjIFlGDz1l6VWEQKsGgCg7YsSNkHV37EHhti0tYSN+WJ9wjYAn32k
agNt56WKpol22beP+zj92GDu
=0mqC
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] GPS error (SA) gone after midnight tonight

From: Rick Sherman <km6ti@jps.net>
Date: Mon, 01 May 2000 19:31:01 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81201-2000.05.01-21.33.05--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

<http://www.whitehouse.gov/library/PressReleases.cgi?date=0&briefing=0>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] APRS Protocol Specification: Third Draft

From: Ian Wade <Ian.Wade@care4free.net>
Date: Wed, 3 May 2000 17:33:29 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81533-2000.05.03-11.35.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
=======================
APRS WORKING GROUP
APRS PROTOCOL REFERENCE
THIRD PUBLIC DRAFT
=======================

The APRS Working Group has now published the third (and hopefully
final) public draft of the APRS Protocol Reference. It is available on
the TAPR website, at http://www.tapr.org/tapr/html/Faprswg.html.

This latest draft incorporates *hundreds* of items of feedback received
since the previous draft published last December, and has now grown to
115 pages.

Several sections have been considerably expanded and clarified. In
particular, the chapters on Mic-E, Weather Reports and APRS Symbols have
been substantially rewritten.

The Working Group invites feedback on the specification, although due to
the extensive public comments that we have already received on prior
drafts, we will not have a formal comment period as defined in the WG
charter; what we ask for now are additional eyes to ensure that we haven't
inadvertently introduced new errors to this draft.  Comments should be
addressed to the TAPR "aprsspec" mailing list. Details of how to join
the list are given on page 2 of the document.

The cutoff date for feedback is midnight local time on Monday 15 May.
Then, depending on the amount of feedback received, the Working Group
hopes to publish the Final Approved version of the specification a few
weeks later.

John Ackermann, N8UR
Administrative Chair, APRS Working Group
2 May 2000

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

5. [picsig] Tripmate noise...

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Thu, 4 May 2000 06:20:54 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81653-2000.05.04-06.19.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Was wondering if any of the other PIC-E users were having problems
with noise from the Tripmate getting on to the transmit audio?
Seems to be eminating from the Tripmate GPS.  Tried two different
Tripmate GPS receivers w/same results.  Any ideas?
73  Mike N0QBH


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
```

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] 1-wire weather station

From: Hosking William-P05328 <Bill.Hosking@motorola.com>
Date: Thu, 4 May 2000 11:41:07 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81763-2000.05.04-15.32.23--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I saw some earlier comments on here relative to Dallas Semis 1-wire weather
station. Now I see in the latest "Circuit Cellar" an article on a stand
alone processor & display.
The article lists TAPR as the source of boards but I find no mention on main
TAPR pages about the project. I was wondering what the status was and might
suggest if it is active that some kind of blurb be put on TAPR for Circuit
Cellar readers who go looking for it.

Bill Hosking
billh@inficad.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Re: 1-wire weather station

From: "Aaron" <ae4ko@amsat.org>
Date: Thu, 4 May 2000 16:51:30 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81767-2000.05.04-15.52.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> I saw some earlier comments on here relative to Dallas Semis 1-wire
> weather station. Now I see in the latest "Circuit Cellar" an article
> on a stand alone processor & display. The article lists TAPR as the
> source of boards but I find no mention on main TAPR pages about the
> project. I was wondering what the status was and might suggest if it
> is active that some kind of blurb be put on TAPR for Circuit Cellar
> readers who go looking for it.
>
> Bill Hosking
> billh@inficad.com
>

The kit is in beta right now.

Details are currently found at:
http://ourworld.compuserve.com/homepages/wmbeals/

TAPR is going to have a web page and a email reflector sig for this
kit when it goes into production. The article was published a bit
sooner than we expected.

Aaron, ae4ko
TAPR 1-wire beta tester.

(Random Quote)
A mind is a terrible thing to....OOHH a doughnut!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Re: 1-wire weather station

From: "Steven R. Bible" <steveb@dandin.com>
Date: Thu, 4 May 2000 17:11:13 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-81774-2000.05.04-16.14.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Aaron is correct.

I'll be bring the beta with me to Dayton to show off. I'll also have the
latest CC Magazine to hand out.

We're nearing completion of the beta now and anticipate production in
approximately 2 months. We'll be putting up a web page soon on the TAPR web
site. All the details are on Will's web site referenced below.

I'll be opening up a new list to discuss the 1-Wire weather station and any
weather related topics that affect hams soon. It's name is WXSIG.

I'll make an announcement on the various TAPR lists soon.

In the mean time, we're busily getting ready (and anticipating :-) for
Dayton!

- Steve, N7HPR

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Aaron
> Sent: Thursday, May 04, 2000 4:52 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Re: 1-wire weather station
>
>
> > I saw some earlier comments on here relative to Dallas Semis 1-wire
> > weather station. Now I see in the latest "Circuit Cellar" an article
> > on a stand alone processor & display. The article lists TAPR as the
> > source of boards but I find no mention on main TAPR pages about the
> > project. I was wondering what the status was and might suggest if it
> > is active that some kind of blurb be put on TAPR for Circuit Cellar
> > readers who go looking for it.
> >
> > Bill Hosking
> > billh@inficad.com
> >
>
> The kit is in beta right now.
>
> Details are currently found at:
> http://ourworld.compuserve.com/homepages/wmbeals/
>
> TAPR is going to have a web page and a email reflector sig for this
> kit when it goes into production. The article was published a bit
> sooner than we expected.
>
> Aaron, ae4ko
> TAPR 1-wire beta tester.
>
>
>
>
> ---
> (Random Quote)
> A mind is a terrible thing to....OOHH a doughnut!
>
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Announcing the APRS DECODER

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sat, 6 May 2000 18:15:13 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82064-2000.05.06-20.16.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

==========
ANNOUNCING "APRSDEC"
THE FULL APRS DECODER PROGRAM
by Ian Wade, G3NRW

6 May 2000
============================

While working on the APRS Protocol Specification, I found it useful to write an APRS Decoder Program (APRSDEC) to verify the details of the protocol.

APRSDEC parses APRS packets in IGate output format, and produces a full decode of all elements of each packet. This will be particularly useful for APRS developers/testers, and also for people who need/want to know more about the protocol, or who want to check out their own packet formats.

Among the more obscure formats, APRSDEC fully understands Mic-E, compressed positions and area objects (circles, triangles etc).

Here is an example of APRSDEC output:

```
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
APRSDEC. APRS Packet Decoder.
Version 1.0.1b (5 May 2000)
by Ian Wade, G3NRW  (g3nrw@arrl.net)

Runtime     = 06-May-2000  16:13:21
Input file  = examples.log
Output file = examples.out

NOTE: If this report contains anything that you think is incorrect,
      please email it to g3nrw@arrl.net for investigation. Thank you.

-------------------------------------------------------------
Record # 1
# EXAMPLES.LOG

-------------------------------------------------------------
Record # 2
WA3SFJ-1>APRS:!3938.16NR07604.26W#PHG3533/CBRA Relay Digi
 APRS Data Type= Posit w/o time. No APRS
 Lat= 39 deg 38 min 10 sec N    Long= 76 deg 4 min 16 sec W
 Icon= Star (green)   Overlay= R
 Power= 9 watts  Ant Height above average terrain= 320 ft  Gain= 3 dB
 Range= 24 miles  Directivity= South East

-------------------------------------------------------------
Record # 3
KD6VZQ-1>APRS,TCPIP,KF6QHT*:@270500z3724.66N/12205.51Wj118/000/Mic-E/M4/Committed>
 APRS Data Type= Posit w/ time. With APRS
 Day=27 Time=05hrs 00mins UTC
 Lat= 37 deg 24 min 40 sec N    Long= 122 deg 5 min 31 sec W
 Icon= Jeep   Overlay= (none)
 Course= 118 deg  Speed=  0 knots ( 0 mph)

-------------------------------------------------------------
Record # 4
KD6VZQ-1>3WRTVX,WR6ABD,W6CX-3*:'2]Pl!.j/]"4.}
 APRS Data Type= Current Mic-E data
 Radio= Kenwood TM-D700
 Message= /M4/Committed
 Lat= 37 deg 24 min 41 sec N    Long= 122 deg 5 min 31 sec W
 Icon= Jeep   Overlay= (none)
 Course= 118 deg  Speed=  0 knots ( 0 mph)
 Altitude= 23 meters ( 75 feet)

-------------------------------------------------------------
Record # 5
G3NRW>3WRTZZ*:'2]Pl!.j/]"4.}
 APRS Data Type= Current Mic-E data
 Radio= Kenwood TM-D700
 Message= /M4/Committed
 Lat= 37 deg 24 min 0 sec N    Long= 122 deg 5 min 0 sec W
 ** WARNING: POSITION AMBIGUOUS to the nearest minute
 Icon= Jeep   Overlay= (none)
 Course= 118 deg  Speed=  0 knots ( 0 mph)
 Altitude= 23 meters ( 75 feet)

-------------------------------------------------------------
Record # 6
WB4APR>APRK11,W5RRR,RELAY,RELAY:;MOVIE    *270138z/:iT!;.C!E{*!Friday Night
 APRS Data Type= Object
 Object Name= MOVIE     (Live)
 Day=27 Time=01hrs 38mins UTC
```

```
 Lat= 38 deg 57 min 58 sec N    Long= 76 deg 32 min 56 sec W
 Icon= Eyeball   Overlay= (none)
 Pre-Calculated Radio Range= 4 miles
 GPS Fix= Old    NMEA Source= Other   Compression Origin= Compressed

------------------------------------------------------------
Record # 7
G3NRW>APRS:;ATLANTIC *012345z0023.45N\00034.56El6201310{10}
 APRS Data Type= Object
 Object Name= ATLANTIC  (Live)
 Day=01 Time=23hrs 45mins UTC
 Lat= 0 deg 23 min 27 sec N    Long= 0 deg 34 min 34 sec E
 Icon= Area Symbol   Overlay= (none)
 Object Type= Line (Type 6)     Object Color= Violet (low intensity)
 Corridor=  10 miles either side of line
 yy offset= 4 deg down   xx offset= 1 deg left
 Offset Posit:   Lat= 3 deg 36 min 33 sec S    Long= 0 deg 25 min 26 sec W

------------------------------------------------------------
Record # 8
VE6CPK>APW245,TCPIP*:_04270500c035s000g001t045r000p000P000h00b10279wDAV
 APRS Data Type= Weather stn (w/o posit)
 Month=Apr Day=27 Time=05hrs 00mins UTC
 Wind Direction= 35 deg  Wind Speed= 0 mph  Gust= 1 mph
 Temp= 45 degF  Rain last hr= 0 in.  last 24hrs= 0 in.  since midnight= 0 in.
 Humidity= 100 %  Barometric pressure= 1027.9 millibars

------------------------------------------------------------
Record # 9
HL5BHH-9>APRS,WIDE:$GPRMC,050012,A,3508.544,N,12901.328,E,000.0,161.0,270400,006.9,W*63
 APRS Data Type= Raw GPS Data
 Month=Apr Day=27 Year=00    Time=05hrs 00mins 12secs UTC
 Lat= 35 deg 8 min 32 sec N    Long= 129 deg 1 min 19 sec E
 Icon= Car   Overlay= (none)
 Course= 161.0 deg  Speed= 0 knots ( 0 mph)
 Status=Valid   Mag variation=006.9W

++++++++++++++++++++ END OF INPUT FILE ++++++++++++++++++++++


~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~


With a few unimportant exceptions, APRSDEC understands all of the APRS features included
in the Protocol Specification. As an extreme example, look at Record #7 above. This draws
a line object with a 10-mile corridor either side, and is carefully contrived to cross
both the Greenwich Meridian and the Equator -- the offset posit shows the position of the
end of the line, in the opposite latitude and longitude hemispheres.

APRSDEC even recognizes Kenwood TM-D700 radios, and corrects the posit to be a *current*
posit rather than an *old* posit. Position ambiguity (Mic-E and uncompressed lat/long) is
also handled correctly.

APRSDEC includes extensive error reporting, showing for example when a parameter is out of
range, or in is the wrong format, or (in the case of NMEA sentences) where there is a bad
checksum.

APRSDEC is now available at http://www.netro.co.uk/aprs.htm

This is the first publicly released version, and I would welcome any feedback, especially
if you find any errors.


73
Ian, G3NRW
Technical Editor, APRS Protocol Specification
                     ********* Third draft now available *********
--
+-----------------------------------------------------------------+
| APRS on 144.800  [IO91SX]         ~55km/35 miles NNW of London  |
|                    email: g3nrw@arrl.net                        |
|                                                                 |
| APRS PROTOCOL SPEC:   http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER:         http://www.netro.co.uk/aprs.htm           |
+-----------------------------------------------------------------+

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
```

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Helping sending APRS WX Packets

From: James Jefferson <jjeffers@deskmedia.com>
Date: Sun, 07 May 2000 00:35:59 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82188-2000.05.07-00.36.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello everyone,

I'm doing a custom weather station telemetry project. I need to transmit
the following pieces of information:

Temperature in degrees C (Example: "23.4")
Temperature in degrees C (Example: "23.4")
Atmospheric pressure in millibars
User A/D. Quantity is in the range 0 through 4095
Wind direction. Degrees
Current wind speed, kM/hr
Wind Gust, greatest wind speed, kM/hr
Rain. Accumulated count
Humidity. Quantity is in picofarads (Example: "123.5")
Humidity. Quantity is in picofarads (Example: "123.5")

How would I form this into an APRS packet? I am going to need some hand
holding here, I've RTFM and it wasn't that easy for me to understand.

For temperature and humidity there are two sensors. With the temperature
measurements one of the sensors is mounted outside the within and the other
within. Initially, on my prototype station, both humidity channels will be
the same, but I would like to transmit two in order to make it future
upgradeable to two RH sensors.

I seem to recall there being some raw channel flag which would let you send
engineering units. Then every few transmissions I could send the conversion
factors as well? Would that be the way to go for User A/D, Rain, and
Humidity? From looking at the specification I am limited to 8 bits, how can
I achieve full resolution, and still stay within specification, on the
various measurements that exceed 8 bits? I would like to avoid having to do
a whole lot of processing on the PIC side, but I guess I could convert my
metric units to English.

I am going to need help forming the whole packet. Compression isn't
necessary because the weather stations are running on their own dedicated
frequency.

Also, what is a good way to test the validity of my packets? Should I use
the APRSdec program which was released yesterday?

Thanks in advance,

-James Jefferson KB0THN

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] Re: Helping sending APRS WX Packets

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 7 May 2000 09:31:53 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82216-2000.05.07-03.33.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-82188-2000.05.07-00.36.16--Ian.Wade#care4free.net@lists
.tapr.org>, James Jefferson <jjeffers@deskmedia.com> writes
>Hello everyone,
>
>I'm doing a custom weather station telemetry project. I need to transmit
>the following pieces of information:

[snip]

Hi James. You raise a number of issues here. To be compliant with the APRS
Protocol Specification, you need to keep in mind the following (page numbers
refer to version 1.0.1m of the spec, currently available at
http://www.tapr.org/tapr/html/Faprswg.html):

1. For the "standard" weather data, you could probably use the Positionless
   Weather Report format (pages 61/62). However, for other people to
   understand your data, you will need to convert the data to the units on
   page 62 prior to transmission.

2. The Positionless Weather Report *must* include an MDHM timestamp (i.e.
   month/day/hours/mins).

3. For other people to plot your station, you need to send a lat/long
   position packet occasionally (e.g. every 15 minutes). This could be in
   standard lat/long format (page 31), compressed format (page 39) or Mic-E
   format (Chapter 10). In all cases, the Symbol Table ID would be "/", and
   the Symbol Code would be "_".

4. As an alternative to the Positionless report, you could send a Complete
   Weather Report (bottom of page 63, page 64). This combines the lat/long
   position and WX data into every packet (so receiving stations don't have
   to wait up to 15 minutes to see where the telemetry station is), and you
   don't need to include a timestamp.

5. You have 2 temperature and 2 humidity sensors. You can only include one
   of each in an APRS Weather report.

6. Instead of using the WX report formats, you could use the Telemetry
   Report format (Chapter 13). However, be aware that (as far as I know)
   only APRSdos understands this format, and it is rarely used. A further
   restriction is that it can handle only *five* unsigned 8-bit analog
   values (but you can specify any units you want).

   Be aware also that:
   a. receiving stations will display the data as *telemetry* data, not as
      weather data.

   b. there is no provision for a WX station symbol in telemetry data.
      However, you could use the generic APRS destination address GPSHW
      instead (bottom of page 90, and page 103) to specify the symbol. e.g.
      KB0THN>GPSHW.

7. The current version (1.0.1b) of the APRS Decoder program (APRSDEC) does
   not decode telemetry formats -- this feature will be added in the next
   release.

8. For the 12-bit A/D, do you need all 12 bits? If the most significant 8
   bits give sufficient precision, you could plug those into one of the
   telemetry channels. If you need to transmit all 12 bits, standard APRS
   will not help you. In that case, you could send the data in a Status
   Report (Chapter 16) or in a User-Defined Format (Chapter 18) -- there is
   no restriction on the data format, but the downside of course is that
   nobody will understand the data unless you provide them with suitable
   decoding software.

I hope this helps.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification
                     ********* Third draft now available *********
--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER: http://www.netro.co.uk/aprs.htm |
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Re: Helping sending APRS WX Packets

From: Steve Dimse <sdimse@netrox.net>
Date: Sun, 7 May 2000 07:47:57 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82225-2000.05.07-06.49.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 5/7/00 1:35 AM James Jefferson (jjeffers@deskmedia.com) wrote:

>I'm doing a custom weather station telemetry project. I need to transmit
>the following pieces of information:
>
>Temperature in degrees C (Example: "23.4")
>Temperature in degrees C (Example: "23.4")
>Atmospheric pressure in millibars
>User A/D. Quantity is in the range 0 through 4095
>Wind direction. Degrees
>Current wind speed, kM/hr
>Wind Gust, greatest wind speed, kM/hr
>Rain. Accumulated count
>Humidity. Quantity is in picofarads (Example: "123.5")
>Humidity. Quantity is in picofarads (Example: "123.5")
>
>How would I form this into an APRS packet? I am going to need some hand
>holding here, I've RTFM and it wasn't that easy for me to understand.
>
Since the data you are transmitting is weather data, I would strongly
suggest using one of the APRS weather formats. I would recommend the
positionless format as it is more efficient. Bob would argue for the
position format, the only argument that holds water IMNSHO is that it is
the only one the Kenwood D700 understands fully, not surprising since he
is the one that told Kenwood what to implement.

The advantage of using the APRS format is that it will allow you to use
any of the client programs to view the data, and it will be available on
the internet through the findU system.

>For temperature and humidity there are two sensors. With the temperature
>measurements one of the sensors is mounted outside the within and the other
>within. Initially, on my prototype station, both humidity channels will be
>the same, but I would like to transmit two in order to make it future
>upgradeable to two RH sensors.
>
The APRS packet only reports a single temp and humidity pair. It also
uses different units than you mention above, you would need to do some
conversions.

The other possibility is to define your own format with the User Defined
format. Basically this allows you to do whatever you want in a packet,
with a few prefix characters to identify the type of the packet.

>I seem to recall there being some raw channel flag which would let you send
>engineering units. Then every few transmissions I could send the conversion
>factors as well? Would that be the way to go for User A/D, Rain, and
>Humidity? From looking at the specification I am limited to 8 bits, how can
>I achieve full resolution, and still stay within specification, on the
>various measurements that exceed 8 bits?

You can't, and this is why the built-in APRS telemetry format is not very
useful. I'm doing the telemetry backend for Steve Robtert's Microship
project (http://www.microship.com), and we will be using out own format
for the data.

My recommendation is to use the APRS weather format for most of the data,
and a custom packet for the second temp/humidity and the "user A/D".

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Re: Announcing the APRS DECODER

From: Alan Crosswell <alan@columbia.edu>
Date: Sun, 7 May 2000 11:32:30 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82271-2000.05.07-10.34.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> ============================
> ANNOUNCING "APRSDEC"
> THE FULL APRS DECODER PROGRAM
> by Ian Wade, G3NRW
> 6 May 2000

```
> =============================
>
> While working on the APRS Protocol Specification, I found it useful to write an APRS
> Decoder Program (APRSDEC) to verify the details of the protocol.
>
> APRSDEC parses APRS packets in IGate output format, and produces a full decode of all
> elements of each packet. This will be particularly useful for APRS developers/testers, and
> also for people who need/want to know more about the protocol, or who want to check out
> their own packet formats.
>
> Among the more obscure formats, APRSDEC fully understands Mic-E, compressed positions and
> area objects (circles, triangles etc).
>
> Here is an example of APRSDEC output:
>
> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
> APRSDEC. APRS Packet Decoder.
> Version 1.0.1b (5 May 2000)
> by Ian Wade, G3NRW  (g3nrw@arrl.net)
>
> Runtime     = 06-May-2000  16:13:21
> Input file  = examples.log
> Output file = examples.out
>
> NOTE: If this report contains anything that you think is incorrect,
>       please email it to g3nrw@arrl.net for investigation. Thank you.
>
> -------------------------------------------------------------
> Record # 1
> # EXAMPLES.LOG
>
> -------------------------------------------------------------
> Record # 2
> WA3SFJ-1>APRS:!3938.16NR07604.26W#PHG3533/CBRA Relay Digi
>  APRS Data Type= Posit w/o time. No APRS
>  Lat= 39 deg 38 min 10 sec N    Long= 76 deg 4 min 16 sec W
>  Icon= Star (green)   Overlay= R
>  Power= 9 watts  Ant Height above average terrain= 320 ft  Gain= 3 dB
>  Range= 24 miles  Directivity= South East
>
> -------------------------------------------------------------
> Record # 3
> KD6VZQ-1>APRS,TCPIP,KF6QHT*:@270500z3724.66N/12205.51Wj118/000/Mic-E/M4/Committed>
>  APRS Data Type= Posit w/ time. With APRS
>  Day=27 Time=05hrs 00mins UTC
>  Lat= 37 deg 24 min 40 sec N    Long= 122 deg 5 min 31 sec W
>  Icon= Jeep   Overlay= (none)
>  Course= 118 deg  Speed=  0 knots ( 0 mph)
>
> -------------------------------------------------------------
> Record # 4
> KD6VZQ-1>3WRTVX,WR6ABD,W6CX-3*:'2]Pl!.j/]"4.}
>  APRS Data Type= Current Mic-E data
>  Radio= Kenwood TM-D700
>  Message= /M4/Committed
>  Lat= 37 deg 24 min 41 sec N    Long= 122 deg 5 min 31 sec W
>  Icon= Jeep   Overlay= (none)
>  Course= 118 deg  Speed=  0 knots ( 0 mph)
>  Altitude= 23 meters ( 75 feet)
>
> -------------------------------------------------------------
> Record # 5
> G3NRW>3WRTZZ*:'2]Pl!.j/]"4.}
>  APRS Data Type= Current Mic-E data
>  Radio= Kenwood TM-D700
>  Message= /M4/Committed
>  Lat= 37 deg 24 min 0 sec N    Long= 122 deg 5 min 0 sec W
>  ** WARNING: POSITION AMBIGUOUS to the nearest minute
>  Icon= Jeep   Overlay= (none)
>  Course= 118 deg  Speed=  0 knots ( 0 mph)
>  Altitude= 23 meters ( 75 feet)
>
> -------------------------------------------------------------
> Record # 6
> WB4APR>APRK11,W5RRR,RELAY,RELAY:;MOVIE    *270138z/:iT!;.C!E{*!Friday Night
>  APRS Data Type= Object
>  Object Name= MOVIE     (Live)
>  Day=27 Time=01hrs 38mins UTC
>  Lat= 38 deg 57 min 58 sec N    Long= 76 deg 32 min 56 sec W
```

```
>  Icon= Eyeball   Overlay= (none)
>  Pre-Calculated Radio Range= 4 miles
>  GPS Fix= Old    NMEA Source= Other   Compression Origin= Compressed
>
> ------------------------------------------------------------
> Record # 7
> G3NRW>APRS:;ATLANTIC *012345z0023.45N\00034.56El6201310{10}
>  APRS Data Type= Object
>  Object Name= ATLANTIC  (Live)
>  Day=01 Time=23hrs 45mins UTC
>  Lat= 0 deg 23 min 27 sec N    Long= 0 deg 34 min 34 sec E
>  Icon= Area Symbol   Overlay= (none)
>  Object Type= Line (Type 6)     Object Color= Violet (low intensity)
>  Corridor=  10 miles either side of line
>  yy offset= 4 deg down   xx offset= 1 deg left
>  Offset Posit:   Lat= 3 deg 36 min 33 sec S    Long= 0 deg 25 min 26 sec W
>
> ------------------------------------------------------------
> Record # 8
> VE6CPK>APW245,TCPIP*:_04270500c035s000g001t045r000p000P000h00b10279wDAV
>  APRS Data Type= Weather stn (w/o posit)
>  Month=Apr Day=27 Time=05hrs 00mins UTC
>  Wind Direction= 35 deg  Wind Speed= 0 mph  Gust= 1 mph
>  Temp= 45 degF  Rain last hr= 0 in.  last 24hrs= 0 in.  since midnight= 0 in.
>  Humidity= 100 %  Barometric pressure= 1027.9 millibars
>
> ------------------------------------------------------------
> Record # 9
> HL5BHH-9>APRS,WIDE:$GPRMC,050012,A,3508.544,N,12901.328,E,000.0,161.0,270400,006.9,W*63
>  APRS Data Type= Raw GPS Data
>  Month=Apr Day=27 Year=00    Time=05hrs 00mins 12secs UTC
>  Lat= 35 deg 8 min 32 sec N    Long= 129 deg 1 min 19 sec E
>  Icon= Car   Overlay= (none)
>  Course= 161.0 deg  Speed= 0 knots ( 0 mph)
>  Status=Valid   Mag variation=006.9W
>
> ++++++++++++++++++++ END OF INPUT FILE ++++++++++++++++++++++
>
>
> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
>
>
>
> With a few unimportant exceptions, APRSDEC understands all of the APRS features included
> in the Protocol Specification. As an extreme example, look at Record #7 above. This draws
> a line object with a 10-mile corridor either side, and is carefully contrived to cross
> both the Greenwich Meridian and the Equator -- the offset posit shows the position of the
> end of the line, in the opposite latitude and longitude hemispheres.
>
> APRSDEC even recognizes Kenwood TM-D700 radios, and corrects the posit to be a *current*
> posit rather than an *old* posit. Position ambiguity (Mic-E and uncompressed lat/long) is
> also handled correctly.
>
> APRSDEC includes extensive error reporting, showing for example when a parameter is out of
> range, or in is the wrong format, or (in the case of NMEA sentences) where there is a bad
> checksum.
>
> APRSDEC is now available at http://www.netro.co.uk/aprs.htm
>
> This is the first publicly released version, and I would welcome any feedback, especially
> if you find any errors.
>
>
> 73
> Ian, G3NRW
> Technical Editor, APRS Protocol Specification
>                       ********* Third draft now available *********
> --
> +---------------------------------------------------------------+
> | APRS on 144.800  [IO91SX]         ~55km/35 miles NNW of London  |
> |                     email: g3nrw@arrl.net                     |
> |                                                               |
> | APRS PROTOCOL SPEC:   http://www.tapr.org/tapr/html/Faprswg.html|
> | APRS DECODER:         http://www.netro.co.uk/aprs.htm         |
> +---------------------------------------------------------------+
>
> ---
> You are currently subscribed to picsig as: n2ygk@weca.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

>

Ian,

A nice idea but why not post the source code?   We don't all run DOS.
/a

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: Announcing the APRS DECODER

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 7 May 2000 18:23:00 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82291-2000.05.07-12.25.54--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-82271-2000.05.07-10.34.21--Ian.Wade#care4free.net@l
ists.tapr.org>, Alan Crosswell <alan@columbia.edu> writes

>A nice idea but why not post the source code?   We don't all run DOS.

Alan, I will be releasing the source when it has settled down a bit and
when I have introduced some new features. The current release is the
first public release, and there are bound to bugs in there still.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification
                     ********* Third draft now available *********
--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER: http://www.netro.co.uk/aprs.htm |
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Re: Helping sending APRS WX Packets

From: Jeff King <jeff@aerodata.net>
Date: Sun, 07 May 2000 14:32:26 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82305-2000.05.07-13.33.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ian Wade wrote:

> In article <LYR14796-82188-2000.05.07-00.36.16--Ian.Wade#care4free.net@lists
> .tapr.org>, James Jefferson <jjeffers@deskmedia.com> writes
> >I'm doing a custom weather station telemetry project.

> 2. The Positionless Weather Report *must* include an MDHM timestamp (i.e.
>   month/day/hours/mins).

> 4. As an alternative to the Positionless report, you could send a Complete
>   Weather Report (bottom of page 63, page 64). This combines the lat/long
>   position and WX data into every packet (so receiving stations don't have
>   to wait up to 15 minutes to see where the telemetry station is), and you
>   don't need to include a timestamp.

One other benefit of the position format (4) that you don't have to know a time stamp.
This eliminates the need for a GPS or a clock chip. I suspect James is using a PIC for
this project, and this could be significant.

Steve Dimse wrote:

> I would recommend the
> positionless format as it is more efficient.

I don't see how this is, could you point this out to me in the spec? If your definition of efficient
is less time over the air, the "Complete Weather Report Format -- with Compressed
Lat/Long position, no Time stamp" appears to be the most efficient (pg 64.) I don't see a
compressed version of the "Positionless weather data format" (pg 62). Plus you'll

still need to send the position on occasion anyways, which complicates the code and
adds further to the overhead (don't forget every AX.25 frame has overhead, which
is not specifically listed in the spec).

Not trying to be argumentative here, it just seems the compressed weather report
format - no time stamp, is more well suited to a small micro like the PIC. The floating
point issues in the compressed format would complicate things, but I believe CCS
can handle this.

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Re: Helping sending APRS WX Packets

From: Jeff King <jeff@aerodata.net>
Date: Sun, 07 May 2000 14:39:18 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82307-2000.05.07-13.39.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff King wrote:

> Ian Wade wrote:
>
> > In article <LYR14796-82188-2000.05.07-00.36.16--Ian.Wade#care4free.net@lists
> > .tapr.org>, James Jefferson <jjeffers@deskmedia.com> writes
> > >I'm doing a custom weather station telemetry project.
>
>
> it just seems the compressed weather report
> format - no time stamp, is more well suited to a small micro like the PIC. The floating
> point issues in the compressed format would complicate things, but I believe CCS
> can handle this.

Actually, since it is a weather station (not moving?) all these floating point calculations
for lat/lon could be done off-line, similar to the method John Hansen uses with his
program.

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] Re: Helping sending APRS WX Packets

From: James Jefferson <jjeffers@deskmedia.com>
Date: Sun, 7 May 2000 15:12:29 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82322-2000.05.07-15.18.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

How do I test my packets? I've finally gotten my parser to work in PCM and I've
gotten the metric to english conversion together - so now I'm ready to start
building APRS packets.

How do I test the packets?
APRSdec looked like the answer, but unfortunately I cannot get it to run. It
always crashing saying something about invalid address.

Can I use my D7A or D700 to do the position based weather packet decoding? I
will be using the packets with the position included so I don't have to use
include a RTC in the field.

Can I just load text files into linux aprs or winaprs? Or do I need to actually
send stuff over the air?

What would really be helpful to me right now would be a raw weather packet
that I could examine to see how things are done. I captured some local APRS
packets this afternoon, but I'm a little worried about them being properly
formed.

-James Jefferson

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] Re: Helping sending APRS WX Packets

From: Steve Dimse <sdimse@netrox.net>
Date: Sun, 7 May 2000 16:29:18 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82324-2000.05.07-15.31.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 5/7/00 4:12 PM James Jefferson (jjeffers@deskmedia.com) wrote:

>Can I use my D7A or D700 to do the position based weather packet decoding? I
>will be using the packets with the position included so I don't have to use
>include a RTC in the field.
>
>Can I just load text files into linux aprs or winaprs? Or do I need to
>actually
>send stuff over the air?
>
You can load text files into WinAPRS (not sure abt xastir), but they must
look like TNC output, with a callsign, path, and colon:

K4HG>APRS:your weather packet here

>What would really be helpful to me right now would be a raw weather packet
>that I could examine to see how things are done. I captured some local APRS
>packets this afternoon, but I'm a little worried about them being properly
>formed.
>
If they are generated by one of the major programs they should be
correct, you can also telnet to second.aprs.net to see the live data
stream. Look for packets with APWxxx, APMxxx, APRxxx, or APSxxx in the
destination callsign, this tells you which program transmitted the data.
Of these, I think APRxxx (APRSdos) is the only one transmitting the
position weather format.

Once you do get the system on the air, if you are near an IGate, you can
see the data plotted at:

http://wx.findu.com/k4hg

of course substituting your callsign...

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: Helping sending APRS WX Packets

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Sun, 7 May 2000 22:00:07 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82373-2000.05.07-21.01.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 7 May 2000, Jeff King wrote:

> > it just seems the compressed [complete] weather report
> > format - no time stamp, is more well suited to a small micro...
>
> Actually, since it is a weather station (not moving?) all these
> floating point calculations for lat/lon could be done off-line, similar
> to the method John Hansen uses with his program.

Yes, APRSdos and APRS+sa and maybe others have a LAT/LONG to compressed
converter so that doing the conversion takes only 3 key strokes. I would
hope that all APRS software includes this conversion aid...

bob, WB4APR

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] Re: Helping sending APRS WX Packets

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Mon, 8 May 2000 09:52:50 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82467-2000.05.08-08.54.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >I'm doing a custom weather station telemetry project. I need to transmit
> >the following pieces of information:

In my opinion, the "complete" WX format is the best since it includes
everything you need (position and WX data) in real time and all in one
packet. In a congested network all you need is one packet to tell the
whole story. It is also shorter than the positionless format and requires
no real-time clock/calendar. It does this by replacing the 16 bytes of
date/time/dir/spd with 13 bytes of the compressed position/dir/spd.

And since now position is included in every packet, the report stands
alone and requires fewer total transmissions than having to send two
separate formats for WX and for position.

de WB4APR, Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] Re: Tripmate noise...

From: John Hansen <john@hansen.net>
Date: Mon, 08 May 2000 18:36:14 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82559-2000.05.08-17.36.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 06:20 AM 5/4/00 -0500, Mike Berg wrote:
>Was wondering if any of the other PIC-E users were having problems
>with noise from the Tripmate getting on to the transmit audio?
>Seems to be eminating from the Tripmate GPS. Tried two different
>Tripmate GPS receivers w/same results. Any ideas?
>73 Mike N0QBH

I used to use a Tripmate (until I sold it) and did not encounter this
problem. But this is just a sample of one. The only mod I did to the
Tripmate was to install a DC jack. It might be worth while experimenting
with the location of the Tripmate relative to the PIC-E. It also might be
worth considering putting the PIC-E in a shielded box. There have been
reports of the amateur transmitted signal getting into the PIC-E, but as
far as I know this is the first reported case of interference from the GPS.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Starting to get WX packets to work ... some Q's

From: James Jefferson <jjeffers@deskmedia.com>
Date: Mon, 8 May 2000 23:06:44 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82630-2000.05.08-23.16.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello everyone,

After 2 hours of hacking this evening I'm starting to get the APRS packets
together. My test setup consists of a KISS TNC connected to the PC firing
out packets to my TH-D7A (Vintage: April 1999).

Question 1:
When I address my packets to "WX" they do not work. When I address them to
"APZ001" they do work. What causes that?

Question 2:
These two packet work:
"!4338.60N/09134.88W_288/010g000t050r000p000P000h82b10110PIC"
"!4338.60N/09134.88W_288/010g000t050r010h82....PIC"

but this one doesn't:
"!4338.60N/09134.88W_288/010g000t050r010h82PIC"

I cannot find reference to the "...." anywhere in the APRS spec, but I noticed
it on air. The spec says that the report doesn't nescessarly need to contain
all of the fields (pressure, for example) - but they or the "...." seems to be
required for the D7A to decode them properly.

That is all for this evening,

-James Jefferson KB0THN

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] Re: Starting to get WX packets to work ... some Q's

From: Ian Wade <Ian.Wade@care4free.net>
Date: Tue, 9 May 2000 08:31:46 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82676-2000.05.09-02.36.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-82630-2000.05.08-23.16.15--Ian.Wade#care4free.net@lists
.tapr.org>, James Jefferson <jjeffers@deskmedia.com> writes

>Question 1:
>When I address my packets to "WX" they do not work. When I address them to
>"APZ001" they do work. What causes that?
>

Assuming by "they do not work" you mean that they don't appear on the D7
display, this looks like a D7 bug. There is nothing wrong with using "WX" as
an APRS destination.

>Question 2:
>These two packet work:
>"!4338.60N/09134.88W_288/010g000t050r000p000P000h82b10110PIC"
>"!4338.60N/09134.88W_288/010g000t050r010h82....PIC"
>
>but this one doesn't:
>"!4338.60N/09134.88W_288/010g000t050r010h82PIC"

There is nothing wrong with this one. Again, I suspect a D7 bug.

>
>I cannot find reference to the "...." anywhere in the APRS spec,

See bottom of page 62.

Dots represent unknown values. e.g. "b...." However, in your example above,
there is no element letter (like "b") preceding the dots, so strictly
speaking it's invalid.

> but I noticed
>it on air. The spec says that the report doesn't nescessarly need to contain
>all of the fields (pressure, for example) - but they or the "...." seems to be
>required for the D7A to decode them properly.

Yet again, seemingly a D7 bug.

I recommend you use a proper APRS program (e.g. APRSdos/WinAPRS/UI-View) as
well as the D7 to check your data -- otherwise you could waste a lot of time
looking for problems that aren't there.

If it works with the APRS software but not with the D7, it's probably a D7
bug (and you will probably want to change your output to make it work with
both), but if it doesn't even work with the software (or with my APRS
Decoder :-)) then there really is a problem.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification
                    ********* Third draft now available *********
--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER: http://www.netro.co.uk/aprs.htm |
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] Re: Starting to get WX packets to work ... some Q's

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Tue, 9 May 2000 12:20:31 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82751-2000.05.09-11.22.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 8 May 2000, James Jefferson wrote:

> When I address my packets to "WX" they do not work. When I address themto
> "APZ001" they do work. What causes that?

APRS only parses certain TO calls.
>
> Question 2:
> These two packet work:
> "!4338.60N/09134.88W_288/010g000t050r000p000P000h82b10110PIC"
> "!4338.60N/09134.88W_288/010g000t050r010h82....PIC"
>
> but this one doesn't:
> "!4338.60N/09134.88W_288/010g000t050r010h82PIC"
>
> I cannot find reference to the "...." anywhere in the APRS spec, but I noticed
> it on air. The spec says that the report doesn't nescessarly need to contain
> all of the fields (pressure, for example) - but they or the "...." seems to be
> required for the D7A to decode them properly.

It looks like the D7 expects more than just the minimum. Remeber the D7
was designed and built before the SPEC was written..

Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] Re: Announcing the APRS DECODER

From: Administrative Account <admin@localhost.com>
Date: Wed, 10 May 2000 05:27:13 -0600 (MDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-82918-2000.05.10-06.28.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You have sent email to a localhost.com administrative address, or a
non-existant localhost.com address.

If you were attempting to complain about services or mail problems,
contact your local administrators. You may have seen an @localhost in
a mail message. This is a reference to the machine the mail was on,
NOT a reference to @localhost.com. We are a totally different Internet
site.

If you were just responding to mail, or trying to contact someone, you
probably have the wrong address. If you are getting this email, it
means no one here knows what your original email was about. Please
check the letter you are replying to for a different email address, or
contact your local administrators for more help. You may also have
been replying to a message on USENet with a forged header. If this is
true, please check the message body for a contact for the person you

were trying to reach, and let them know that they are forging posts
from a valid domain.

If a website site told you to contact root@localhost, and the web site
wasn't www.localhost.com, you've reached the wrong people. You need
to contact root (or postmaster) at the web site that was giving you an
error. Also, if you actually sent your email to root@localhost
instead of root@localhost.com you might want to let your local admins
know that mail to @localhost is leaving their domain.

If you were trying to complain about spam from a localhost.com
address, you should know that localhost.com maintains no mailing lists
that you are on. You are almost certainly mistaking a @localhost for
an @localhost.com. @localhost is a system alias for the machine the
mail is currently on. @localhost.com is a totally different Internet
site. Recently some spam has been going out with a message id
pointing to localhost.com. Again, this has nothing to do with us.
its not hard to forge this information, and that is what someone is
doing. We attempt to stop any forged spam as soon as we become aware
of it however.

As a note, please include full headers from ANY spam when you send
complaints. No one can track the spam email and figure out where it
really originated without these headers.

If you wish to complain about spam, I would suggest contacting your
local administrators first, and getting their advice. Also, we
maintain a site with a number of links to anti-spam pages. Take a
look at: http://www.localhost.com for more info.

If you still think you need to talk to the localhost.com
administrative staff, please send your message to admin@localhost.com

        -=- Matthew L. Seidl
            localhost.com admin

ps. Your message is included below for your information.

==

26. [picsig] Announcing the APRS DECODER

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sat, 6 May 2000 18:15:13 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR7371-82064-2000.05.06-20.16.16--yh#ottawa.com@lists.tapr.org>
Rendered body type: text/plain

```
============================
ANNOUNCING "APRSDEC"
THE FULL APRS DECODER PROGRAM
by Ian Wade, G3NRW
6 May 2000
============================

While working on the APRS Protocol Specification, I found it useful to write an APRS
Decoder Program (APRSDEC) to verify the details of the protocol.

APRSDEC parses APRS packets in IGate output format, and produces a full decode of all
elements of each packet. This will be particularly useful for APRS developers/testers, and
also for people who need/want to know more about the protocol, or who want to check out
their own packet formats.

Among the more obscure formats, APRSDEC fully understands Mic-E, compressed positions and
area objects (circles, triangles etc).

Here is an example of APRSDEC output:

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
APRSDEC. APRS Packet Decoder.
Version 1.0.1b (5 May 2000)
by Ian Wade, G3NRW  (g3nrw@arrl.net)

Runtime     = 06-May-2000  16:13:21
Input file  = examples.log
Output file = examples.out

NOTE: If this report contains anything that you think is incorrect,
      please email it to g3nrw@arrl.net for investigation. Thank you.
```

```
------------------------------------------------------------
Record # 1
# EXAMPLES.LOG

------------------------------------------------------------
Record # 2
WA3SFJ-1>APRS:!3938.16NR07604.26W#PHG3533/CBRA Relay Digi
 APRS Data Type= Posit w/o time. No APRS
 Lat= 39 deg 38 min 10 sec N    Long= 76 deg 4 min 16 sec W
 Icon= Star (green)   Overlay= R
 Power= 9 watts  Ant Height above average terrain= 320 ft  Gain= 3 dB
 Range= 24 miles  Directivity= South East

------------------------------------------------------------
Record # 3
KD6VZQ-1>APRS,TCPIP,KF6QHT*:@270500z3724.66N/12205.51Wj118/000/Mic-E/M4/Committed>
 APRS Data Type= Posit w/ time. With APRS
 Day=27 Time=05hrs 00mins UTC
 Lat= 37 deg 24 min 40 sec N    Long= 122 deg 5 min 31 sec W
 Icon= Jeep   Overlay= (none)
 Course= 118 deg  Speed=  0 knots ( 0 mph)

------------------------------------------------------------
Record # 4
KD6VZQ-1>3WRTVX,WR6ABD,W6CX-3*:'2]Pl!.j/]"4.}
 APRS Data Type= Current Mic-E data
 Radio= Kenwood TM-D700
 Message= /M4/Committed
 Lat= 37 deg 24 min 41 sec N    Long= 122 deg 5 min 31 sec W
 Icon= Jeep   Overlay= (none)
 Course= 118 deg  Speed=  0 knots ( 0 mph)
 Altitude= 23 meters ( 75 feet)

------------------------------------------------------------
Record # 5
G3NRW>3WRTZZ*:'2]Pl!.j/]"4.}
 APRS Data Type= Current Mic-E data
 Radio= Kenwood TM-D700
 Message= /M4/Committed
 Lat= 37 deg 24 min 0 sec N    Long= 122 deg 5 min 0 sec W
 ** WARNING: POSITION AMBIGUOUS to the nearest minute
 Icon= Jeep   Overlay= (none)
 Course= 118 deg  Speed=  0 knots ( 0 mph)
 Altitude= 23 meters ( 75 feet)

------------------------------------------------------------
Record # 6
WB4APR>APRK11,W5RRR,RELAY,RELAY:;MOVIE    *270138z/:iT!;.C!E{*!Friday Night
 APRS Data Type= Object
 Object Name= MOVIE     (Live)
 Day=27 Time=01hrs 38mins UTC
 Lat= 38 deg 57 min 58 sec N    Long= 76 deg 32 min 56 sec W
 Icon= Eyeball   Overlay= (none)
 Pre-Calculated Radio Range= 4 miles
 GPS Fix= Old    NMEA Source= Other   Compression Origin= Compressed

------------------------------------------------------------
Record # 7
G3NRW>APRS:;ATLANTIC *012345z0023.45N\00034.56El6201310{10}
 APRS Data Type= Object
 Object Name= ATLANTIC  (Live)
 Day=01 Time=23hrs 45mins UTC
 Lat= 0 deg 23 min 27 sec N    Long= 0 deg 34 min 34 sec E
 Icon= Area Symbol   Overlay= (none)
 Object Type= Line (Type 6)     Object Color= Violet (low intensity)
 Corridor=  10 miles either side of line
 yy offset= 4 deg down   xx offset= 1 deg left
 Offset Posit:   Lat= 3 deg 36 min 33 sec S    Long= 0 deg 25 min 26 sec W

------------------------------------------------------------
Record # 8
VE6CPK>APW245,TCPIP*:_04270500c035s000g001t045r000p000P000h00b10279wDAV
 APRS Data Type= Weather stn (w/o posit)
 Month=Apr Day=27 Time=05hrs 00mins UTC
 Wind Direction= 35 deg  Wind Speed= 0 mph  Gust= 1 mph
 Temp= 45 degF  Rain last hr= 0 in.  last 24hrs= 0 in.  since midnight= 0 in.
 Humidity= 100 %  Barometric pressure= 1027.9 millibars

------------------------------------------------------------
```

```
Record # 9
HL5BHH-9>APRS,WIDE:$GPRMC,050012,A,3508.544,N,12901.328,E,000.0,161.0,270400,006.9,W*63
 APRS Data Type= Raw GPS Data
 Month=Apr Day=27 Year=00    Time=05hrs 00mins 12secs UTC
 Lat= 35 deg 8 min 32 sec N    Long= 129 deg 1 min 19 sec E
 Icon= Car   Overlay= (none)
 Course= 161.0 deg  Speed= 0 knots ( 0 mph)
 Status=Valid   Mag variation=006.9W

++++++++++++++++++++ END OF INPUT FILE ++++++++++++++++++++++


~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~


With a few unimportant exceptions, APRSDEC understands all of the APRS features included
in the Protocol Specification. As an extreme example, look at Record #7 above. This draws
a line object with a 10-mile corridor either side, and is carefully contrived to cross
both the Greenwich Meridian and the Equator -- the offset posit shows the position of the
end of the line, in the opposite latitude and longitude hemispheres.

APRSDEC even recognizes Kenwood TM-D700 radios, and corrects the posit to be a *current*
posit rather than an *old* posit. Position ambiguity (Mic-E and uncompressed lat/long) is
also handled correctly.

APRSDEC includes extensive error reporting, showing for example when a parameter is out of
range, or in is the wrong format, or (in the case of NMEA sentences) where there is a bad
checksum.

APRSDEC is now available at http://www.netro.co.uk/aprs.htm

This is the first publicly released version, and I would welcome any feedback, especially
if you find any errors.


73
Ian, G3NRW
Technical Editor, APRS Protocol Specification
                     ********* Third draft now available *********
--
+-------------------------------------------------------------------+
| APRS on 144.800  [IO91SX]         ~55km/35 miles NNW of London  |
|                     email: g3nrw@arrl.net                         |
|                                                                   |
| APRS PROTOCOL SPEC:   http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER:         http://www.netro.co.uk/aprs.htm           |
+-------------------------------------------------------------------+

---
You are currently subscribed to picsig as: yh@ottawa.com
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org



---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

27. [picsig] Programming the Pic-E

```
From: Peter Bennett <pbennett@guate.net>
Date: Fri, 12 May 2000 11:13:34 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83358-2000.05.12-12.12.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
Hello list,

I just finished building my pic-e. I would like to know if I can program

it using Visual Basic and how to do that...

Thank you in advance
Peter Bennett



---
```

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] Re: Programming the Pic-E

From: John Hansen <hansen@fredonia.edu>
Date: Fri, 12 May 2000 13:29:01 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83367-2000.05.12-12.31.25--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Any programming environment that can be used to program a PIC16F84 can be
used with the PIC-E. However, to the best of my knowledge, there is no way
to compile code created with Visual Basic so that it can be used with a
PIC. There is at least one company that makes a basic compiler for PIC's
see (http://www.melabs.com/mel/pbp.htm) but I've never used their product
myself.

John W2FS

At 11:13 AM 5/12/00 -0600, you wrote:
>Hello list,
>
>I just finished building my pic-e. I would like to know if I can program
>
>it using Visual Basic and how to do that...
>
>Thank you in advance
>Peter Bennett
>
>
>
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] RE: microcontroller programming environments

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Fri, 12 May 2000 13:35:25 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83368-2000.05.12-12.34.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Just an FYI for the AVR affectionado's out there... haven't tested it yet..
but.. it is
a HLL "ish" programming environment....

a c compiler to complete your avr project?, then look no further, only $199
usd (plus postage and EU tax if applicable) Kanda can offer a solution.

 With every order received before end of May, you receive the whole Kanda
"Get going series" of Books AVR,FPGA,PLDs worth ($90 usd) absolutely FREE!!

 We can guarantee same day despatch worldwide!

 Software demo, data sheet and buy on line facility available at -

 http://www.avr-forum.com/demos.html

> -----Original Message-----
> From: John Hansen [SMTP:hansen@fredonia.edu]
> Sent: Friday, May 12, 2000 1:29 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Re: Programming the Pic-E
>
> Any programming environment that can be used to program a PIC16F84 can be
> used with the PIC-E. However, to the best of my knowledge, there is no
> way
> to compile code created with Visual Basic so that it can be used with a
> PIC. There is at least one company that makes a basic compiler for PIC's
> see (http://www.melabs.com/mel/pbp.htm) but I've never used their product
> myself.
>

> John W2FS
>
> At 11:13 AM 5/12/00 -0600, you wrote:
> >Hello list,
> >
> >I just finished building my pic-e. I would like to know if I can program
> >
> >it using Visual Basic and how to do that...
> >
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] [Fwd: [aprssig] HamHUD-II PC Boards available]

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 12 May 2000 18:03:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83428-2000.05.12-18.03.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151

31. [picsig] MIC-E to NMEA-Converter

From: "K.Hirschelmann" <k.hirschelmann@mainz.netsurf.de>
Date: Sat, 13 May 2000 15:02:15 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83546-2000.05.13-08.05.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello,
in case somebody is interested in using MIC-E-Format-Messages (like
being send from TH-D7, PIC-E, MIC-E or Tinytrak) for evaluation with
Standard-NMEA-MAP-Programs (like e.g. FUGAWI, GPSS, WINGPS or those for
organizers), then he should try my simple "MICENMEA"-Converter.

More Info can be found here : http://www.kh-gps.de/micenmea.htm

The Kenwood TM-D700 is said to deliver a slightly different
MIC-E-Protocol. Future versions of "MICENMEA" are planned to cover also
signals being send from this type of radio.

I am looking for Beta-Testers

Klaus DJ7OO

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] Aisin GPS RX: I need pin-out info

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 14 May 2000 14:41:27 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83778-2000.05.14-08.43.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have just acquired an Aisin GPS board, and need the pin-out
information for the 8-pin rectangular connector (CN1) and the 8-pin
round connector (CN2).

Also, the previous owner snipped off the antenna (that's all he bought
the board for), so what kind of antenna should I get to replace it?

Can you help?

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

```
                    ********* Third draft now available *********
--
+-----------------------------------------------------------------+
| APRS on 144.800  [IO91SX]         ~55km/35 miles NNW of London  |
|                    email: g3nrw@arrl.net                        |
|                                                                 |
| APRS PROTOCOL SPEC:   http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER:         http://www.netro.co.uk/aprs.htm           |
+-----------------------------------------------------------------+

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

33. [picsig] Re: Aisin GPS RX: I need pin-out info

From: "Aaron Morrison" <ae4ko@amsat.org>
Date: Sun, 14 May 2000 11:33:15 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-83797-2000.05.14-10.35.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 14 May 2000, at 14:41, Ian Wade wrote:

> I have just acquired an Aisin GPS board, and need the pin-out
> information for the 8-pin rectangular connector (CN1) and the 8-pin
> round connector (CN2).
>

Check out http://gps.instanet.com/ for a lot of good information,
but here's what you need:

CN1: ("Interface connector")

Pin	Function
1	Power (+12VDC)
2	GND
3	Power (+5V)
4	GND
5	Transmit signal (Tx)
6	Receive signal (Rx)
7	Signal GND
8	Backup (+12V)

CN2: ("Display connector")

Pin	Function
1	Power (+12V)
2	Power(+12V)
3	Transmit signal (Tx)
4	Signal GND
5	Receive signal (Rx)
6	GND
7	GND
8	Connect signal

> Also, the previous owner snipped off the antenna (that's all he bought
> the board for), so what kind of antenna should I get to replace it?
>

I should think any active GPS antenna would work.

> Can you help?
>
> 73
> Ian, G3NRW

I have 2 of these and have modified one with Byon Garrabrant's PIC
NMEA converter (http://www.byonics.com/gst-2/) and am using it
with my D700 and have been pleased with the unit for what it is
(inexpensive!).

73
Aaron, ae4ko
Orlando, FL

Random Quote:

    Dictatorship (n): a form of government under which everything

which is not prohibited is compulsory.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] Re: Aisin GPS RX: I need pin-out info

From: hshk@ix.netcom.com (HSHK)
Date: Mon, 15 May 2000 12:10:34 GMT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org, gps@qth.net
Message-ID: <LYR6890-83992-2000.05.15-07.12.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Ian,

The best and easiest thing to do is remove the
GPS engine itself from the board the Aisin board.

The white connector from the engine to the board (CN3)
comes right off.

The engine is secured to the board via two screws.

Remount the engine on a piece of perf board.

Also remove the backup battery as they cost about
$6.00 around here. It is fed to pin four via a diode.

The pin out of the (CN3) connector ar as follows.

1 - N/C
2 - N/C
3 - Ground
4 - Backup Battery
5 - +5VDC
6 - Signal Ground
7 - Signal-In (RX) TTL
8 - Signal-Out (TX) TTL

The signals coming out of pin 8 will now match the PDF file with
the communication protocols used by the engine.

Below is a sample of the of the output (in hex) as sent by the
engine. This is two of the data "streams" sent by the engine each
second by default. Each consists of four packets. A "CACA" packet,
a "CBCB" packet, a "C3C3" packet and a "C4C4" packet.

If you compare this to the "Communications Specifications of GPS
Receiver Part Number: D8120-2041" document, you'll see that it
matches exactly.

The communications are at 9600 baud, 8-Data Bits, 1-Stop Bit and
Even Parity (totaling 11-bits).

I have written code for the Atmel AT89S8252 (an 8051 derivative) to
decode this adn translate it into standard NMEA data that can then be
fed to any program that uses NMEA data (like Street Atlas, GPSS and
the like).

If you plan to run the data-out (pin-8) to a PC and not a
microcontroller, you'll want to add a MAX232 chip or similar chip
to bring the line level upto RS-232 specs as the are at TTL levels.

Good luck.

Bill KA8VIT

===
Data from pin 8 of the Aisin GPS Engine.

CA CA 04 02 47 F3 AB FB 85 A4 8A 00 64 C7 76 01 25 FF 00 00 08
09 0A 00 00 03 05 21 01 37 10 13 1B 00 80 21 5A D0 0D DD 00 07
97 0D CB CB 37 04 78 1D AE 67 0E 78 1D 22 22 09 78 16 C3 1F 05
78 16 E0 16 07 71 00 2C 5C 02 71 00 71 30 18 71 00 A6 2A 00 00
00 00 00 00 FF 77 F7 77 4B 0D C3 C3 02 0A 00 01 00 00 00 6D 0D
C4 C4 85 87 B0 2A 00 00 00 92 0D

```
CA CA 04 02 47 F3 AB FB 85 A4 8A 00 64 C6 75 01 34 FF 00 00 08
09 0A 00 00 03 05 21 01 38 10 13 1B 00 80 21 5A D0 0D DD 00 07
89 0D CB CB 38 04 78 1C AE 67 0E 78 1D 22 22 09 78 15 C3 1F 05
78 15 E0 16 07 71 00 2C 5C 02 71 00 71 30 18 71 00 A6 2A 00 00
00 00 00 00 FF 77 F7 77 4D 0D C3 C3 02 0A 00 01 00 00 00 6D 0D
C4 C4 85 87 B0 2A 00 00 00 92 0D

=====================================================

On Sun, 14 May 2000 14:41:27 +0100, you wrote:

>I have just acquired an Aisin GPS board, and need the pin-out
>information for the 8-pin rectangular connector (CN1) and the 8-pin
>round connector (CN2).
>
>Also, the previous owner snipped off the antenna (that's all he bought
>the board for), so what kind of antenna should I get to replace it?
>
>Can you help?
>
>73
>Ian, G3NRW
>Technical Editor, APRS Protocol Specification
>                     ********* Third draft now available *********


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

35. [picsig] Pic-E Messages...

```
From: Peter Bennett <pbennett@guate.net>
Date: Mon, 15 May 2000 10:55:56 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84058-2000.05.15-11.54.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

The Mic-E has a button to select the message to send (On Duty, Off Duty, etc.), is it possible to attach a button to the Pic-E to accomplish the same?

Thank you in advance
Peter Bennett

```
---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

36. [picsig] Stupid MX614 Tricks

```
From: Steve Bragg <steveb@c2-tech.com>
Date: Tue, 16 May 2000 23:23:03 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84376-2000.05.16-23.23.52--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

I've been playing around with MX614 circuits, trying to figure out a minimal interface to this beastie, to shoehorn it into the HamHUD. I have some questions, for those MX614 Wizards I know are here:

* The PIC-E has the TXD and RXD lines coming into the PIC seperately. But: a) APRS is half-duplex, and b) the RXD line is held low when not in receive mode. So, the obvious question: has anyone connected the TXD and RXD lines together with a resistor, and used a single PIC pin for transmit and receive data?

* It looks like M1 only goes to zero when transmitting. Can the PIC pin connected to this also be used as PTT, or at least to trigger a PNP transistor for PTT? (What I am asking is to confirm that M1 is zero ONLY when transmitting.)

Not exactly related to the MX614:

* Has anyone detected a flag by measuring the time between successive transitions? Since NRZI encodes zeroes as state transitions, if it is a true flag, there should be at least 6.5 bit times (833 uS each) between successive transitions of the RX data line, right?

Just a newbie to this modem,

Steve Bragg KA9MVA
--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
Nine East Fourth St.
Tulsa, OK 74055
http://www.c2-tech.com/~steveb

Find me with APRS! http://map.findu.com/ka9mva-6

"#define QUESTION ((2b) || !(2b))"
    - Shakespeare

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

37. [picsig] Re: Stupid MX614 Tricks

From: "Byon Garrabrant" <byon@mail.com>
Date: Wed, 17 May 2000 21:40:42 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84599-2000.05.17-23.42.54--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 16 May 00, at 23:23, Steve Bragg wrote:

> I've been playing around with MX614 circuits, trying to figure out a
> minimal interface to this beastie, to shoehorn it into the HamHUD. I have
> some questions, for those MX614 Wizards I know are here:
>
> * The PIC-E has the TXD and RXD lines coming into the PIC seperately. But:
> a) APRS is half-duplex, and b) the RXD line is held low when not in
> receive mode. So, the obvious question: has anyone connected the TXD and
> RXD lines together with a resistor, and used a single PIC pin for transmit
> and receive data?

I haven't tried it, but it makes sense that it would work.

> * It looks like M1 only goes to zero when transmitting. Can the PIC pin
> connected to this also be used as PTT, or at least to trigger a PNP
> transistor for PTT? (What I am asking is to confirm that M1 is zero ONLY
> when transmitting.)

Another good Idea. I haven't tried it either, but again, makes sense.

> Not exactly related to the MX614:
>
> * Has anyone detected a flag by measuring the time between successive
> transitions? Since NRZI encodes zeroes as state transitions, if it is a
> true flag, there should be at least 6.5 bit times (833 uS each) between
> successive transitions of the RX data line, right?

This is how I decoded all packet bits in my PIC-E, not just the flag.
 I measured time between transitions, and rounded to the nearest
bit count. Since there is not start/stop bit, you need to re-sync
with each transition.

Byon
_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

38. [picsig] Re: Stupid MX614 Tricks

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Thu, 18 May 2000 17:49:33 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84702-2000.05.18-17.50.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Byon Garrabrant wrote:
>
> On 16 May 00, at 23:23, Steve Bragg wrote:
>
> > receive mode. So, the obvious question: has anyone connected the TXD and

> > RXD lines together with a resistor, and used a single PIC pin for transmit
> > and receive data?
>
> I haven't tried it, but it makes sense that it would work.

Thanks, I'm going to do just that.

> > * It looks like M1 only goes to zero when transmitting. Can the PIC pin
> > connected to this also be used as PTT, or at least to trigger a PNP
> > transistor for PTT? (What I am asking is to confirm that M1 is zero ONLY
> > when transmitting.)
>
> Another good Idea. I haven't tried it either, but again, makes sense.

Thanks. Will do.

> > * Has anyone detected a flag by measuring the time between successive
> > transitions?
>
> This is how I decoded all packet bits in my PIC-E, not just the flag.
> I measured time between transitions, and rounded to the nearest
> bit count. Since there is not start/stop bit, you need to re-sync
> with each transition.

Wow! If you are saying what I *THINK* you are saying, it's brilliant!

OK, let me read this back to you to make sure I understand it: Since
NRZI encodes zeroes as state transitions, you don't attempt to sample
the receive data input between transitions. You simply count the number
of ones (no-transition bit times) that have occurred since the last
transition, and shift that many bits into the receive shift register.
Is that right? An example might be in order:

Send 4F hex (capital O) followed by a capital N (4E hex)

```
Bits:
7 6 5 4 3 2 1 0    7 6 5 4 3 2 1 0
0 1 0 0 1 1 1 1    0 1 0 0 1 1 1 0

NRZI (assuming the starting state is high):

L L H L L L L L    H H L H H H H L

Transitions:

X - X X - - - -    X - X X - - - X
```

So, from the third transition to the fourth, there are 4 bit times, so
there must have been four ones there? Hmmm. This seems fairly easy,
and it doesn't look like you'd have to dedicate a timer to it. Just
using a rolling timer whose resolution was
sufficient should do, because you could capture the timer value on each
transition, and compare that on the next transition.

Now, I know all packets must start and end with a flag, which are
guaranteed to have two 0's in them, and thus two transitions. But since
you might not be able to read a long string of ones until the next byte
(like in the example) do you keep a 16-bit shift register going to
handle all the bits? How do you handle this, Byon?

Thanks for sharing a neat trick. Since the PIC16F87x has
interrupt-on-change, it looks like I'll be able to implement AX.25
reception in the HamHUD using an existing always-running timer, and very
little additional software.

73,

Steve Bragg KA9MVA

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

39. [picsig] Re: Stupid MX614 Tricks

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 18 May 2000 16:48:52 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR6890-84708-2000.05.18-18.51.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 18 May 2000, Steve Bragg wrote:

> > > * Has anyone detected a flag by measuring the time between successive
> > > transitions?
> >
> > This is how I decoded all packet bits in my PIC-E, not just the flag.
> > I measured time between transitions, and rounded to the nearest
> > bit count. Since there is not start/stop bit, you need to re-sync
> > with each transition.
>
> Wow! If you are saying what I *THINK* you are saying, it's brilliant!
>
> OK, let me read this back to you to make sure I understand it: Since
> NRZI encodes zeroes as state transitions, you don't attempt to sample
> the receive data input between transitions. You simply count the number
> of ones (no-transition bit times) that have occurred since the last
> transition, and shift that many bits into the receive shift register.
> Is that right? An example might be in order:
>
> Send 4F hex (capital O) followed by a capital N (4E hex)
>
> Bits:
> 7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
> 0 1 0 0 1 1 1 1   0 1 0 0 1 1 1 0
>
> NRZI (assuming the starting state is high):
>
> L L H L L L L L   H H L H H H H L
>
> Transitions:
>
> X - X X - - - -   X - X X - - - X
>
> So, from the third transition to the fourth, there are 4 bit times, so
> there must have been four ones there? Hmmm. This seems fairly easy,
> and it doesn't look like you'd have to dedicate a timer to it. Just
> using a rolling timer whose resolution was
> sufficient should do, because you could capture the timer value on each
> transition, and compare that on the next transition.
>
> Now, I know all packets must start and end with a flag, which are
> guaranteed to have two 0's in them, and thus two transitions. But since
> you might not be able to read a long string of ones until the next byte
> (like in the example) do you keep a 16-bit shift register going to
> handle all the bits? How do you handle this, Byon?
>
> Thanks for sharing a neat trick. Since the PIC16F87x has
> interrupt-on-change, it looks like I'll be able to implement AX.25
> reception in the HamHUD using an existing always-running timer, and very
> little additional software.

I did the same in 1985 with a 6803 in assembly code. It had an interrupt
that could be set to trigger on either transition. Once it triggered I
flipped it to detect the opposite transition. A free-running 16-bit
counter could be "reset" to something like 0xFFF8 if I remember correctly.
Close enough to zero for my purposes. When I got a transition, I read the
counter and reset it. I then counted how many bit-times were in that value.
The first bit was always a zero, and the rest were ones.

In the interrupt routine I had a software shift register that could
contain up to 8 bits. Once I got that 8th bit I shoved it into a
circular byte queue that the main program read, then continued adding
bits to the bit queue until I ran out, then returned from interrupt.

It's amazing how simple this stuff can be. When you look at the
spec it's a bit daunting. You have to remember to take care of the

zero-bit stuffing and unstuffing as well though.

The main program is where I implemented the CRC-16 checking and
the whole thing was blazingly fast on the box, which ran at 1/4 the
TV colorburst frequency, less than 1 Mhz. It was a RS micro color
computer (the one with the chicklet keyboard).

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] Re: Stupid MX614 Tricks

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 18 May 2000 16:52:05 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Curt Mills, WE7U" <BowHunter@mail.com>, Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR6890-84709-2000.05.18-18.54.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 18 May 2000, Curt Mills, WE7U wrote:

> The main program is where I implemented the CRC-16 checking and
> the whole thing was blazingly fast on the box, which ran at 1/4 the
> TV colorburst frequency, less than 1 Mhz. It was a RS micro color
> computer (the one with the chicklet keyboard).

I got an algorithm for doing byte-wise CRC-16 checking out of an
IEEE magazine, and that speeded things up as well.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] Re: Stupid MX614 Tricks

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 18 May 2000 16:56:40 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Curt Mills, WE7U" <BowHunter@mail.com>, Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR6890-84710-2000.05.18-18.58.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 18 May 2000, Curt Mills, WE7U wrote:

> > Send 4F hex (capital O) followed by a capital N (4E hex)
> >
> > Bits:
> > 7 6 5 4 3 2 1 0   7 6 5 4 3 2 1 0
> > 0 1 0 0 1 1 1 1   0 1 0 0 1 1 1 0
> >
> > NRZI (assuming the starting state is high):
> >
> > L L H L L L L L   H H L H H H H L
> >
> > Transitions:
> >
> > X - X X - - - -   X - X X - - - X
> >
> > So, from the third transition to the fourth, there are 4 bit times, so
> > there must have been four ones there?

I think you are VERY close, but I read this as 5 bit times, as there
is a bit time for the zero as well. That's how I used to process the
packets, and it worked.

> > and it doesn't look like you'd have to dedicate a timer to it. Just
> > using a rolling timer whose resolution was

> > sufficient should do, because you could capture the timer value on each
> > transition, and compare that on the next transition.

Yes, or if you do have one free, read it and reset it like I did.

> > Now, I know all packets must start and end with a flag, which are
> > guaranteed to have two 0's in them, and thus two transitions. But since
> > you might not be able to read a long string of ones until the next byte
> > (like in the example) do you keep a 16-bit shift register going to
> > handle all the bits? How do you handle this, Byon?

8-bit shift register in the interrupt routine. Once you have a byte
dump it off for the main program to handle and then process more bits
in the ISR until you run out.

> > Thanks for sharing a neat trick. Since the PIC16F87x has
> > interrupt-on-change, it looks like I'll be able to implement AX.25
> > reception in the HamHUD using an existing always-running timer, and very
> > little additional software.

Yep!

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

42. [picsig] Re: Stupid MX614 Tricks

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 18 May 2000 19:55:16 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Curt Mills, WE7U" <BowHunter@mail.com>, Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR6890-84717-2000.05.18-20.06.37--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

>> > X - X X - - - -   X - X X - - - X

This looks VERY similar to what I did reading barcodes.
I used a timer to capture the widths, then did some cleanups, which would
be even easier here, and then a decision tree that decoded each char in
five compares.

Maybe it would be applicable here.

- --
Are you an ISP? Tired of spam?
www.spamwhack.com A pre-emptive strike against spam!

Where's Dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 6.5.2 for non-commercial use <http://www.pgp.com>

iQA+AwUBOSStFIFlGDz1l6VWEQJ9nwCgm/pv937A6DPGbiToOqGJ2t4HLcoAmKpW
QNbhY9i86zMYprrNdOJpCi4=
=V7Nd
-----END PGP SIGNATURE-----

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

43. [picsig] Re: Stupid MX614 Tricks

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 19 May 2000 10:35:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-84815-2000.05.19-10.36.08--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> On Thu, 18 May 2000, Steve Bragg wrote:
> > You simply count the number
> > of ones (no-transition bit times) that have occurred since the last
> > transition, and shift that many bits into the receive shift register.

Hi Curt,

Thanks for answering my questions. Between your replies and Byon's,
this is really starting to make sense to me. I may have to condense all
this into a web page so others can grok it too...

"Curt Mills, WE7U" wrote:

> I did the same in 1985 with a 6803 in assembly code.

Wow, I'm impressed! I was writing code then (in 6809 assembly, on the
COCO) but I didn't know what AX.25 was back then!

> When I got a transition, I read the
> counter and reset it. I then counted how many bit-times were in that value.
> The first bit was always a zero, and the rest were ones.

Hmmm... this confuses me a bit. When you receive an interrupt, that
indicates a "zero" following zero or more "ones". Wouldn't you shift in
the ones first, followed by the zero? Can you explain that a little
bit, maybe with an example? (I realize my example was backward; the
bits come in least-significant-bit first, not MSB first like my example
showed. Well, except for the FCS, which is shifted in backward.)

> In the interrupt routine I had a software shift register that could
> contain up to 8 bits. Once I got that 8th bit I shoved it into a
> circular byte queue that the main program read, then continued adding
> bits to the bit queue until I ran out, then returned from interrupt.

OK, I get it!

> It's amazing how simple this stuff can be. When you look at the
> spec it's a bit daunting.

Yes, indeed, I was thinking of using a timer to sample the incoming data
stream every bit period. Wasteful of time and resources.

> You have to remember to take care of the
> zero-bit stuffing and unstuffing as well though.

OK, so on reception, with five 'one' bits in a row followed by a 'zero',
you dump the 'zero'? Sounds like a piece of cake with the algorithm
you've described. Since you got an interrupt because a zero appeared,
you shift in the ones, like always, but don't shift in the zero at the
end if 5 one bits appeared since the last transition. Right?

> It was a RS micro color
> computer (the one with the chicklet keyboard).

I still have my MC-10!

73,

Steve
--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

44. [picsig] packet decoding w/PIC

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Fri, 19 May 2000 12:03:55 -0500

To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84829-2000.05.19-12.03.55--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I recently rewrote my receive routine to make use of the
port b pin change flag. Plan to do some more beta testing
then release it to the group.

```
===========================================
;       Packet bit receive routine
;       Returns with 0 or 1 in Zero Flag
recv_one_bit                        ;delay 833 uS
        btfsc   INTCON,RBIF
        goto    bit_edge            ;saw tone toggle
        btfss   INTCON,T0IF
        goto    recv_one_bit        ;not timed out
        movlw   0x7e                ;timed out
        movwf   TMR0                ;reset timer
        bcf     INTCON,T0IF         ;1 byte long
        clrw                        ;Z flag set
        return
bit_edge
        movlw   0x3d                ;load 1 1/2 bits
        movwf   TMR0
        movfw   PORTB               ;reset port change
        bcf     INTCON,RBIF         ;clear RBIF
        bcf     INTCON,T0IF
        movfw   TMR0                ;Z flag clear
        return
===========================================
```

So far in testing, it seems to perform very well.

73 Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

45. [picsig] Re: packet decoding w/PIC

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 19 May 2000 12:28:41 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84836-2000.05.19-12.29.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mike Berg wrote:
>
> I recently rewrote my receive routine to make use of the
> port b pin change flag. Plan to do some more beta testing
> then release it to the group.

Hi Mike, all,

Kind of interesting you're working on this, because I'm trying to do a
similar thing in C. Could I get you and the other AX.25 heads here
(Curt, Byon,etc) to look at the C below and see if I'm on the right
track? It's HEAVILY comments, and set up on 4-character tabstops. I've
also attached the source in a zipfile so you can avoid the horrible
things email does to text.

Thanks,

Steve

```
(Global declarations)

unsigned char axbits = 0;                                       // counts the number of bits in
byte
being assembled from AX.25 input
unsigned char axsr = 0;                                         // Shift register used to
assemble bytes
from AX.25 input
unsigned char axtime = 0;                                       // used to detect the number of
ones
before a zero detected by
                                                                // PORTB state change interrrupt
unsigned char axin = 0;                                         // used to detect a change in
state of the
```

```
AX.25 input
unsigned char ones = 0;                                         // The number of ones since the
last zero
(state transition)

(Inside the Interrupt Service Routine)


if (RBIE && RBIF)                                               // Did we detect a change in a
PORTB bit?
{
        if ((PORTB ^ axin) == 0x40)                             // Was it the rx data input that
changed?
        {
                // Find out how many bit times it's been since the last transition
(indicating a zero).
                // The number of bits indicates how many ones there've been since the
last 0.
                // If the number of ones before the zero is exactly five, the zero is
a result of "bit stuffing" and should
                // be ignored.

                ones = (TMR0 - axtime + 1) / 16;                // Assumes TMR0 increments at
approx baudrate x 16
                                                                // 1 is added to make sure we
round up if the count is close
                axtime = TMR0;                                  // Save receive time for next
time

                for (i=1; i < ones; i++)
                {
                        axsr >>= 1;                             // Shift incoming register right
 to make room for a
new bit
                        axsr |= 0x80;                           // Add another one
                        axbits++;                               // Bump bit count

                        if (axbits == 8)                        // End of byte?
                        {                                       // Yes, save it off in temporary
 RAM buffer
                                axbits = 0;                     // Reset bit count
                                nxt = (axtail + 1) % AX25BUFLEN;        // Compute next buffer ptr value
                                axbuf[axtail] = axsr;           // Save byte
                                axtail = nxt;                   // Update ptr
                                axqcnt++;                       // bump buffer count
                                axsr = 0;                       // Clear shift register to start
 another
                        }
                }

                if (ones != 5)                                  // Five ones followed by a zero
indicate
                {                                               // bit stuffing; don't store the
 zero
                        axsr >>= 1;                             // Shift incoming register right
 to make room for a
new bit
                        axsr &= ~0x80;                          // Combine in the zero indicated
 by the state
transition
                        axbits++;                               // Bump bit count
                }

                if (axbits == 8)                                // End of byte?
                {                                               // Yes, save it off in temporary
 RAM buffer
                        axbits = 0;                             // Reset bit count
                        nxt = (axtail + 1) % AX25BUFLEN;        // Compute next buffer ptr value
                        axbuf[axtail] = axsr;                   // Save byte
                        axtail = nxt;                           // Update ptr
                        axqcnt++;                               // bump buffer count
                        axsr = 0;                               // Clear shift register to start
 another
                }

                axin = PORTB;                                   // save off current port status
        }
        else
        {
```

```
        // Process GPS and whiz wheel activity
        }

}

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS!  http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151
[Attachment: ax25rx.zip; application/x-zip-compressed; 1,109 bytes]
```

46. [picsig] Re: packet decoding w/PIC (more)

```
From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 19 May 2000 12:31:10 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84837-2000.05.19-12.32.17--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mike Berg wrote:
>
> I recently rewrote my receive routine to make use of the
> port b pin change flag.  Plan to do some more beta testing
> then release it to the group.

<code>

> So far in testing, it seems to perform very well.

Hi Mike,

Looking at this code, it seems to me that you are dedicating TMR0 to the
task of receiving AX.25.  While this works for small applications, often
larger PIC applications use the timer for other things, too, and so keep
it running all the time. Have your tried writing an AX.25 receive
routine that just copies the value of the rolling timer, rather than
resetting it to a specific value?

73,


Steve

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS!  http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

47. [picsig] Re: Stupid MX614 Tricks

```
From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 19 May 2000 10:59:41 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84843-2000.05.19-13.01.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 19 May 2000, Steve Bragg wrote:

> "Curt Mills, WE7U" wrote:
>
> > I did the same in 1985 with a 6803 in assembly code.
>
> Wow, I'm impressed! I was writing code then (in 6809 assembly, on the
> COCO) but I didn't know what AX.25 was back then!

Actually that was my first TNC, and it was receive only.  The MC-10.
There were two (count them two!) people in the college town at the
```

time that were doing packet. Man that was a long time ago.

> > When I got a transition, I read the
> > counter and reset it. I then counted how many bit-times were in that value.
> > The first bit was always a zero, and the rest were ones.
>
> Hmmm... this confuses me a bit. When you receive an interrupt, that
> indicates a "zero" following zero or more "ones". Wouldn't you shift in
> the ones first, followed by the zero? Can you explain that a little
> bit, maybe with an example? (I realize my example was backward; the
> bits come in least-significant-bit first, not MSB first like my example
> showed. Well, except for the FCS, which is shifted in backward.)

Here's what I did. I reset the counter after reading it. Grabbed the
counter value and divided by the bit times. That gave me the number
of bits that came in since the last interrupt. Assume the number I have
now is '5'. This is what I just received: "01111". If I only have one
bit time then I'd just have a "0". Two bit times is "01". Three is
"011". Because you got ANY transition, you know that you have at least
a zero. If you have more times after that they are all ones. That is,
to the best of what I can remember, what I did. That was also 15 years
ago...

> > In the interrupt routine I had a software shift register that could
> > contain up to 8 bits. Once I got that 8th bit I shoved it into a
> > circular byte queue that the main program read, then continued adding
> > bits to the bit queue until I ran out, then returned from interrupt.
>
> OK, I get it!

Damn simple, isn't it?

> > You have to remember to take care of the
> > zero-bit stuffing and unstuffing as well though.
>
> OK, so on reception, with five 'one' bits in a row followed by a 'zero',
> you dump the 'zero'? Sounds like a piece of cake with the algorithm
> you've described. Since you got an interrupt because a zero appeared,
> you shift in the ones, like always, but don't shift in the zero at the
> end if 5 one bits appeared since the last transition. Right?

I'm sorry that I can't remember the details on the bit stuffing, but as
I recall if you were going to end up trying to transmit a stream of 6
or more 1's, then you inserted a zero after the 5th bit (so that you
wouldn't end up with a flag character, which was 0111 1110). On the
receive side you had to look probably for 5 ones followed by two zeroes?
and delete one of the zeroes. Could be just after 5 ones you always
delete a zero, I can't recall. Been too long. Should be easy to
figure out though.

> > It was a RS micro color
> > computer (the one with the chicklet keyboard).
>
> I still have my MC-10!

WARNING, OLD STUFF NOBODY CARES ABOUT ANYMORE: I looked at the specs
on the chip, and where they brought the cassette port in I inserted
a DPDT switch to invert the TX/RX lines to the microprocessor. This
let me hook into the same connector but use an input that could do the
either-level-interrupt that I needed. Then just had to flip the switch
the other way in order to use the cassette. I also wrote a forth
compiler for that box, in 2k of hand-coded assembly language. The AX.25
receive hardware was an HT and an EXAR XR-2211 chip. The AX.25 receive
ended up being one of my forth words.

My APRS tracker was until recently an MIT Handyboard running
native code generated by GCC on Linux, talking to an AEA PK-88 on
the TX line (doing MIC-E packets) and listening to a GPS on the RX line.

http://www.eskimo.com/~archer is where you can download the HC11 back-end
to the GCC compiler and some low-level libraries for a Handyboard. You
can also use an MIT Miniboard with this compiler. One of these days I'll
figure out that a little money will save me a lot of work... All of
these parts were ones that I had on hand. I still haven't bought an
APRS-capable TNC.

I now use multiple TinyTrak's. Built from scratch on PIC proto boards.
Getting in Search & Rescue pretty heavy, so they'll get some use this
year.

Good luck! Sorry my memory is failing, but that was a LONG time ago.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

48. [picsig] Re: Stupid MX614 Tricks

From: "James & Kathy Gutshall" <gutshall@freewwweb.com>
Date: Fri, 19 May 2000 12:19:28 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84844-2000.05.19-13.22.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hey I still have my 4 MC 10s'..... some people still enjoy the old stuff
too.   Do you still have the software for paket on the mc10?

-----Original Message-----
From: Curt Mills, WE7U <hacker@tc.fluke.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Friday, May 19, 2000 12:00 PM
Subject: [picsig] Re: Stupid MX614 Tricks

>On Fri, 19 May 2000, Steve Bragg wrote:
>
>> "Curt Mills, WE7U" wrote:
>>
>> > I did the same in 1985 with a 6803 in assembly code.
>>
>> Wow, I'm impressed! I was writing code then (in 6809 assembly, on the
>> COCO) but I didn't know what AX.25 was back then!
>
>Actually that was my first TNC, and it was receive only. The MC-10.
>There were two (count them two!) people in the college town at the
>time that were doing packet. Man that was a long time ago.
>
>
>> > When I got a transition, I read the
>> > counter and reset it. I then counted how many bit-times were in that
value.
>> > The first bit was always a zero, and the rest were ones.
>>
>> Hmmm... this confuses me a bit. When you receive an interrupt, that
>> indicates a "zero" following zero or more "ones". Wouldn't you shift in
>> the ones first, followed by the zero? Can you explain that a little
>> bit, maybe with an example? (I realize my example was backward; the
>> bits come in least-significant-bit first, not MSB first like my example
>> showed. Well, except for the FCS, which is shifted in backward.)
>
>Here's what I did. I reset the counter after reading it. Grabbed the
>counter value and divided by the bit times. That gave me the number
>of bits that came in since the last interrupt. Assume the number I have
>now is '5'. This is what I just received: "01111". If I only have one
>bit time then I'd just have a "0". Two bit times is "01". Three is
>"011". Because you got ANY transition, you know that you have at least
>a zero. If you have more times after that they are all ones. That is,
>to the best of what I can remember, what I did. That was also 15 years
>ago...
>
>
>> > In the interrupt routine I had a software shift register that could
>> > contain up to 8 bits. Once I got that 8th bit I shoved it into a
>> > circular byte queue that the main program read, then continued adding
>> > bits to the bit queue until I ran out, then returned from interrupt.
>>
>> OK, I get it!
>
>Damn simple, isn't it?

>
>
>> > You have to remember to take care of the
>> > zero-bit stuffing and unstuffing as well though.
>>
>> OK, so on reception, with five 'one' bits in a row followed by a 'zero',
>> you dump the 'zero'? Sounds like a piece of cake with the algorithm
>> you've described. Since you got an interrupt because a zero appeared,
>> you shift in the ones, like always, but don't shift in the zero at the
>> end if 5 one bits appeared since the last transition. Right?
>
>I'm sorry that I can't remember the details on the bit stuffing, but as
>I recall if you were going to end up trying to transmit a stream of 6
>or more 1's, then you inserted a zero after the 5th bit (so that you
>wouldn't end up with a flag character, which was 0111 1110). On the
>receive side you had to look probably for 5 ones followed by two zeroes?
>and delete one of the zeroes. Could be just after 5 ones you always
>delete a zero, I can't recall. Been too long. Should be easy to
>figure out though.
>
>
>> > It was a RS micro color
>> > computer (the one with the chicklet keyboard).
>>
>> I still have my MC-10!
>
>WARNING, OLD STUFF NOBODY CARES ABOUT ANYMORE: I looked at the specs
>on the chip, and where they brought the cassette port in I inserted
>a DPDT switch to invert the TX/RX lines to the microprocessor. This
>let me hook into the same connector but use an input that could do the
>either-level-interrupt that I needed. Then just had to flip the switch
>the other way in order to use the cassette. I also wrote a forth
>compiler for that box, in 2k of hand-coded assembly language. The AX.25
>receive hardware was an HT and an EXAR XR-2211 chip. The AX.25 receive
>ended up being one of my forth words.
>
>My APRS tracker was until recently an MIT Handyboard running
>native code generated by GCC on Linux, talking to an AEA PK-88 on
>the TX line (doing MIC-E packets) and listening to a GPS on the RX line.
>
>http://www.eskimo.com/~archer is where you can download the HC11 back-end
>to the GCC compiler and some low-level libraries for a Handyboard. You
>can also use an MIT Miniboard with this compiler. One of these days I'll
>figure out that a little money will save me a lot of work... All of
>these parts were ones that I had on hand. I still haven't bought an
>APRS-capable TNC.
>
>I now use multiple TinyTrak's. Built from scratch on PIC proto boards.
>Getting in Search & Rescue pretty heavy, so they'll get some use this
>year.
>
>Good luck! Sorry my memory is failing, but that was a LONG time ago.
>
>Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
>Senior Methods Engineer/SysAdmin
>"Lotto: A tax on people who are bad at math." -- unknown
>"Windows: Microsoft's tax on computer illiterates." -- WE7U
>
>
>---
>You are currently subscribed to picsig as: jeg@cc.usu.edu
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

49. [picsig] Re: Stupid MX614 Tricks

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 19 May 2000 11:37:04 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84846-2000.05.19-13.39.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 19 May 2000, James & Kathy Gutshall wrote:

> Hey I still have my 4 MC 10s'..... some people still enjoy the old stuff

> too.   Do you still have the software for paket on the mc10?

The last I saw of the software it was written on green engineering
graph paper and at the bottom of some box in the garage. I would
expect that chances of finding all the pages complete now would
be slim.

It was only 200 to 300 bytes though. Shouldn't be too hard to figure
out (10,000 monkeys on typewriters and all that). ;-)

If I happen to run across any of it I'll try to collect it all
together. I DO have to get to that garage sometime soon.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

50. [picsig] Re: Stupid MX614 Tricks

From: "James & Kathy Gutshall" <gutshall@freewwweb.com>
Date: Fri, 19 May 2000 13:04:29 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84847-2000.05.19-14.07.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Well if you can find it , I ould enjoy trying it ... I have often thought
about trying to paket in the mc10 and the CoCo!...
-----Original Message-----
From: Curt Mills, WE7U <hacker@tc.fluke.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Friday, May 19, 2000 12:39 PM
Subject: [picsig] Re: Stupid MX614 Tricks

>On Fri, 19 May 2000, James & Kathy Gutshall wrote:
>
>> Hey I still have my 4 MC 10s'..... some people still enjoy the old stuff
>> too.   Do you still have the software for paket on the mc10?
>
>The last I saw of the software it was written on green engineering
>graph paper and at the bottom of some box in the garage. I would
>expect that chances of finding all the pages complete now would
>be slim.
>
>It was only 200 to 300 bytes though. Shouldn't be too hard to figure
>out (10,000 monkeys on typewriters and all that). ;-)
>
>If I happen to run across any of it I'll try to collect it all
>together. I DO have to get to that garage sometime soon.
>
>Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
>Senior Methods Engineer/SysAdmin
>"Lotto: A tax on people who are bad at math." -- unknown
>"Windows: Microsoft's tax on computer illiterates." -- WE7U
>
>
>---
>You are currently subscribed to picsig as: jeg@cc.usu.edu
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

51. [picsig] PIC AX25 receive, 2nd rev

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 19 May 2000 14:26:43 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: hamhud@egroups.com
Message-ID: <LYR6890-84848-2000.05.19-14.27.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Guys,

I found some bugs in the first one, and I added the flag sync. Here's
the new one. If you have the interest, please look it over. Anyone who
wants may use this.

73,

Steve KA9MVA
--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
[Attachment: pic_ax25_rx.zip; application/x-zip-compressed; 1,346 bytes]

52. [picsig] Re: Stupid MX614 Tricks

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Fri, 19 May 2000 15:57:39 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84864-2000.05.19-15.58.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Curt Mills, WE7U" wrote:

> Here's what I did. I reset the counter after reading it. Grabbed the
> counter value and divided by the bit times. That gave me the number
> of bits that came in since the last interrupt.

OK, I'm with you.

> Assume the number I have
> now is '5'. This is what I just received: "01111".

Oh... Actually, you just received "11110", but since AX.25 is sent LSB
first...

> If I only have one
> bit time then I'd just have a "0". Two bit times is "01".

That, I understand. What I don't understand is whether you shifted in
the "0" BEFORE the ones for AFTER them...

> Damn simple, isn't it?

Oh yes, no doubt. This is very good, very fast.

[bit stuffing]

> > OK, so on reception, with five 'one' bits in a row followed by a 'zero',
> > you dump the 'zero'?
> Could be just after 5 ones you always
> delete a zero, I can't recall.

Yes, this is way I understand it. And since I shift in the "0" after
the ones, all I have to do is just skip the zero if there have been five
ones.

> I still haven't bought an APRS-capable TNC.

Well, commercial TNCs are 100% overkill for APRS. All you need is UI
packets. Even the "remote connect" feature that's so highty touted
could be done with UI packets, using a long rolling code as a password
on each command sent.

> Good luck! Sorry my memory is failing, but that was a LONG time ago.

Thanks! I appreciate what you remembered!

73,

Steve
--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103

http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

53. [picsig] ASKIN GPS CONVERT TO NMEA

From: "Gustavo Carpignano" <gcarpi@sinectis.com.ar>
Date: Fri, 19 May 2000 17:55:53 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84865-2000.05.19-15.59.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

someone in the list could programm PIC12C672 for aisin gps for convert his
string to nmea.

I have picstart plus but in the list didn't appear this chip.

Regards.

Gustavo.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

54. [picsig] Re: Stupid MX614 Tricks

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 19 May 2000 14:12:54 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84870-2000.05.19-16.16.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 19 May 2000, Steve Bragg wrote:

> "Curt Mills, WE7U" wrote:
>
> > Here's what I did. I reset the counter after reading it. Grabbed the
> > counter value and divided by the bit times. That gave me the number
> > of bits that came in since the last interrupt.
>
> OK, I'm with you.
>
> > Assume the number I have
> > now is '5'. This is what I just received: "01111".
>
> Oh... Actually, you just received "11110", but since AX.25 is sent LSB
> first...

Just shift the bit in from the other end of the byte you're assembling.
I think that's what I did so that I didn't have to reverse the bits
before adding it to the byte queue. I wanted the interrupt routine
to be as fast as possible too so I could get out of it and start
processing the CRC and then display the darn thing.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

55. [picsig] Re: ASKIN GPS CONVERT TO NMEA

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 19 May 2000 14:14:44 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84871-2000.05.19-16.18.53--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

On Fri, 19 May 2000, Gustavo Carpignano wrote:

> someone in the list could programm PIC12C672 for aisin gps for convert his
> string to nmea.
>
> I have picstart plus but in the list didn't appear this chip.

        http://www.byonics.com/gst-2/index.html

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

56. [picsig] Re: ASKIN GPS CONVERT TO NMEA

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 19 May 2000 15:52:13 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR6890-84878-2000.05.19-17.54.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 19 May 2000, Gustavo Carpignano wrote:

> someone in the list could programm PIC12C672 for aisin gps for convert his
> string to nmea.
>
> I have picstart plus but in the list didn't appear this chip.

If you already have the chip, but just need someone to program it
for you, I could probably do it. Don't know what postage would be
both ways from your location to mine. I'm in Washington State, USA.

It might be cheaper depending on where you are just to order one
pre-programmed from Byonics.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

57. [picsig] Re: ASKIN GPS CONVERT TO NMEA

From: "Lou" <lfaustini@atlantech.net>
Date: Fri, 19 May 2000 20:01:42 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Curt Mills" <hacker@tc.fluke.com>,
        "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR6890-84883-2000.05.19-19.01.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

here is my code to convert the asin gps to nmea. needs a pic12c672.

  It will translate GPGSV GGA GLL and GSV. I --think-- it is the most
comprehensive
one i have seen on the net..

  N3NRH

```
;***********************************************************
;                    LCD Display decoder for GPS             *
;                  Using PIC12c67X Microprocessor             *
;***********************************************************
;       Binary data is being read in, converted,             *
;       and outputed. output is inverted, expecting a rs-232  *
```

```
*       driver. I suggest you use the one on the asyn board.  *
*       Port Configurations :                                 *
;                                                             *
;       RA0 : GPS Input                                       *
;       RA1 : Serial Output_to_user (Expecting a MAX23x drvr) *
;       RA2 : Serial Output_to_gps- wire directly to GPS-input*
;       RA3 : n/c                                             *
;       RA4 : lock led. (pulled to gnd when locked)           *
;       RA5 : Heartbeat led. Blinks when pic is working       *
;                                                             *
;*************************************************************
;       processor pic 12c67x                                  *
;       code protection OFF                                   *
;       power up timer enabled                                *
;       WDT enabled                                           *
;       INTERNAL (4MHz) oscillator                            *
;*************************************************************
```

-----Original Message-----
From: Curt Mills, WE7U <hacker@tc.fluke.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>; Curt Mills, WE7U <BowHunter@mail.com>
Date: Friday, May 19, 2000 6:53 PM
Subject: [picsig] Re: ASKIN GPS CONVERT TO NMEA

>On Fri, 19 May 2000, Gustavo Carpignano wrote:
>
>> someone in the list could programm PIC12C672 for aisin gps for convert
his
>> string to nmea.
>>
>> I have picstart plus but in the list didn't appear this chip.
>
>If you already have the chip, but just need someone to program it
>for you, I could probably do it. Don't know what postage would be
>both ways from your location to mine. I'm in Washington State, USA.
>
>It might be cheaper depending on where you are just to order one
>pre-programmed from Byonics.
>
>Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
>Senior Methods Engineer/SysAdmin
>"Lotto: A tax on people who are bad at math." -- unknown
>"Windows: Microsoft's tax on computer illiterates." -- WE7U
>
>
>
>
>---
>You are currently subscribed to picsig as: lfaustini@atlantech.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
[Attachment: Disp-4.hex; application/octet-stream; 7,140 bytes]

58. [picsig] Re: ASKIN GPS CONVERT TO NMEA

From: "James & Kathy Gutshall" <gutshall@freewwweb.com>
Date: Fri, 19 May 2000 20:07:41 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84889-2000.05.19-21.10.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi I have programed the software that speakof into the 12c672... I have the
picstart plus too... it does support the 12c672.... look again ... if for
some odd reason it dosent you just need the upgrade... you can get the
upgrade from digikey for about $20 or so..
-----Original Message-----
From: Gustavo Carpignano <gcarpi@sinectis.com.ar>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Friday, May 19, 2000 2:58 PM
Subject: [picsig] ASKIN GPS CONVERT TO NMEA

>Hi,
>
>someone in the list could programm PIC12C672 for aisin gps for convert his
>string to nmea.
>

>I have picstart plus but in the list didn't appear this chip.
>
>Regards.
>
>Gustavo.
>
>
>---
>You are currently subscribed to picsig as: jeg@cc.usu.edu
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

59. [picsig] re: software...

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Sat, 20 May 2000 07:23:08 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-84976-2000.05.20-07.23.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>Looking at this code, it seems to me that you are dedicating TMR0 to the
>task of receiving AX.25. While this works for small applications, often
>larger PIC applications use the timer for other things, too, and so keep
>it running all the time. Have your tried writing an AX.25 receive
>routine that just copies the value of the rolling timer, rather than
>resetting it to a specific value?

You're correct that this routine hogs the TMR0 counter. When I was
originally writing the code, I was trying to preserve as many registers
as possible for data storage. Then I discovered FRAM :)
What you propose shouldn't be too hard to implement. Just grab the
TMR0 value at the bit transition, add the delay and use the new value
as the timeout comparison number.
Hopefully, I can find some time to mess with it.

On another note...
I've put together a file package for my DGPS decoder.
It includes a jpg schematic of the decoder, PIC program to decode,
and a couple of associated zipped programs.
One does the same thing as the PIC program using a PC,
(i.e. decodes raw FSK, determines sync and outputs serial RTCM104 .)
the other translates the RTCM serial data into correction data for
individual satellites and displays it on the screen.
If anyone's interested, drop a note and I'll forward them to you.
Whole thing is about 300k.
73 Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

60. [picsig] EAS to APRS

From: "Ray J. Vaughan" <ray@rayvaughan.com>
Date: Sun, 21 May 2000 01:46:31 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-85101-2000.05.21-00.48.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm considering my first PIC project. I'm wondering if anyone has tried to parse EAS (Emergency Alert System) messages for transmission on APRS. I can get the data, I think, out of an EAS decoder at our EOC. But I'm thinking of using the PIC-e to encode this data stream for transmission. For those of you who are experienced in the PIC-e, is this too much for a first project? Has someone already done this? Or something like it? Maybe a text to APRS program?

Thanks.

Ray J. Vaughan, MS, CBTE, CERT
KD4BBM PG-7-15266
http://www.rayvaughan.com/
ray@rayvaughan.com
ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

61. [picsig] Asynchronous 9600 bps modem with PIC16F84

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Sun, 21 May 2000 18:53:31 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-85186-2000.05.21-16.51.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

I have just made a 9600 bps modem to a client using only a PIC16F84-10,
a MAX232 and a TLC2274.

The modem connects to a conventional RS232 @ 9600 baud, RX/TX switch
via RTS. Other signal used are RXD, TXD and DCD. The power supply is
external.

The uP just read the asynchronous bits from the RS232 and transmits them
synchronously using the G3RUH like signal to an UHF KS1000 radio.

I was wondering if this modem couldn't be used on Packet. It would need a
software driver with some protocol for detect/correct bit errors.

Ideas ?

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

62. [picsig] Power connector

From: "Ray J. Vaughan" <ray@rayvaughan.com>
Date: Mon, 22 May 2000 23:32:11 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-85470-2000.05.22-22.34.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Forgive me if this has been mentioned before, but I just found out what happens when you deviate from the instructions for the PIC-e.

I'm building mine for connection to a GE Phoenix radio which will supply power to the PIC circuit. The connector is on the radio end of the short cable so the PIC end is being hard-wired.. So I used the battery connection for the power connection. So I figured I didn't need the the coaxial power connector. Wrong. Battery voltage is routed through this connector. Didn't take me long to figure it out, but hopefully this will save someone a couple minutes. I just installed a jumper between the two large round holes.

Again, there's nothing wrong with the instructions or the PCB. Just a warning if you're going to deviate from the original design.

Ray J. Vaughan, MS, CBTE, CERT
KD4BBM PG-7-15266
http://www.rayvaughan.com/
ray@rayvaughan.com
ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

63. [picsig] software for oncore VP receivers

From: Steve Pelletier <SPELLETI@ONEIDANATION.ORG>
Date: Tue, 23 May 2000 10:29:44 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-85578-2000.05.23-10.34.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Does anyone know where I can get a copy of the DOC PC controller
software for the Motorola Oncore family of GPS receivers? I picked up a

few Oncores cheap at Dayton and want to reconfigure them.

Steve
KB9OAL

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

64. [picsig] Re: software for oncore VP receivers

From: "Warren A Merkel" <austin@magicnet.net>
Date: Tue, 23 May 2000 15:22:04 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: Steve Pelletier <SPELLETI@ONEIDANATION.ORG>
Message-ID: <LYR6890-85625-2000.05.23-14.24.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Does anyone know where I can get a copy of the DOC PC controller
> software for the Motorola Oncore family of GPS receivers? I picked up
> a few Oncores cheap at Dayton and want to reconfigure them.
>
> Steve
> KB9OAL
Try Ralph's site.

ftp://ftp.mindspring.com/users/rwf/gps_stuff/gps90.zip

Warren A. Merkel
kd4zdd@amsat.org
Orlando, FL

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

65. [picsig] Where to get MX614's for experimentation

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Wed, 24 May 2000 16:14:51 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-85911-2000.05.24-16.16.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Does anyone know where I can get some MX614's for experimentation? Does
TAPR sell them in onesy-twosey quantities?

73,

Steve Bragg KA9MVA
--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
ICQ:29816109

HamHUD Mobile APRS: http://www.c2-tech.com/~steveb/hamhud

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

66. [picsig] GPS-E-2f

From: "Ray J. Vaughan" <ray@rayvaughan.com>
Date: Wed, 24 May 2000 20:55:30 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86106-2000.05.24-19.58.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm making my first attempts at making the PIC-E work.

The kit is built, the diag and diag2 programs work flawlessly.   I'm now trying to load tracking
firmware using the GPS-E-2f software.   I've made the modifications using the program. I have NO clue
what ' quiet time' or ' slow speed access ' mean, but I left them set at '1'.

I sometimes can't load with the program, so I do an output file and load it with PicProg. I connect
everything up, then power it up. In my config, powering up the PIC also powers up the GPS, so there's a
 delay before the GPS locks up and starts sending data. I get the half second blink on the Valid LED at
 power up. So far, so good.

I hear packets on the radio, but no Active light.   I wait.   Nothing.   Then I pull JP4 and replace it.

That seems to fix the Active light. Why?

The GPS is locked. No Valid light. After a few power cycles, I get the Valid light. I disconnect the GPS. Valid light stays on. Does that mean I can't trust it?

Also, in my config, there's no microphone. Do I need to put something in to force the Mic PTT high or low? I'm using a Magellan GPS 3000. I do want an output with a GLL string in it, right? 4800 bps?

I've yet to get a PTT light. Manual or auto. No valid transmissions yet.

What am I doing wrong?

Thanks.

Ray J. Vaughan, MS, CBTE, CERT
KD4BBM PG-7-15266
http://www.rayvaughan.com/
ray@rayvaughan.com
ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

67. [picsig] RE: Where to get MX614's for experimentation

From: "Bob Hansen" <bhansen@stny.rr.com>
Date: Wed, 24 May 2000 21:24:13 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86111-2000.05.24-20.25.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You can get the MX-614 from TAPR for $6.00 (plus shipping). Here's the link
for the order page:
http://www.tapr.org/tapr/cgi/genorder.cgi

-Bob H. / N2GDE

> -----Original Message-----
> From: bounce-picsig-7400@lists.tapr.org
> [mailto:bounce-picsig-7400@lists.tapr.org]On Behalf Of Steve Bragg
> Sent: Wednesday, May 24, 2000 5:15 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Where to get MX614's for experimentation
>
>
> Does anyone know where I can get some MX614's for experimentation? Does
> TAPR sell them in onesy-twosey quantities?
>
> 73,
>
> Steve Bragg KA9MVA
> --
> Steve Bragg KA9MVA, RF Engineer
> C2 Technologies, Inc.
> 100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
> ICQ:29816109
>
> HamHUD Mobile APRS: http://www.c2-tech.com/~steveb/hamhud
>
> ---
> You are currently subscribed to picsig as: n2gde@tapr.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

68. [picsig] Re: Where to get MX614's for experimentation

From: "James & Kathy Gutshall" <gutshall@freewwweb.com>
Date: Wed, 24 May 2000 19:24:43 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86125-2000.05.24-20.45.25--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

yes tapr sells in 1 or 2's
-----Original Message-----

From: Steve Bragg <steveb@skymaster.c2-tech.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Wednesday, May 24, 2000 3:14 PM
Subject: [picsig] Where to get MX614's for experimentation

>Does anyone know where I can get some MX614's for experimentation? Does
>TAPR sell them in onesy-twosey quantities?
>
>73,
>
>Steve Bragg KA9MVA
>--
>Steve Bragg KA9MVA, RF Engineer
>C2 Technologies, Inc.
>100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
>ICQ:29816109
>
>HamHUD Mobile APRS: http://www.c2-tech.com/~steveb/hamhud
>
>---
>You are currently subscribed to picsig as: jeg@cc.usu.edu
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

69. [picsig] Decoding packet on the PIC-E (was Stupid MX614 Tricks)

From: "Byon Garrabrant" <byon@mail.com>
Date: Wed, 24 May 2000 22:12:33 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86220-2000.05.25-00.15.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For those that didn't know, my PIC-E packet decoding code is on
the TAPR FTP site under pktin01.zip. I will give a few notes about
PACKETI.ASM that may help in understanding what I did.

There are two subroutines to call in PACKETI.ASM:

PacketIn_Init - Just sets up the modem chip and the timer TMR0

PacketIn_Update - Is called often to handle decoding the incoming
packet. It will possibly set the following bits upon return:

* PacketInNewByteFlag - to say a new byte has been receive and
is stored in packetin_byte
* PacketInResetFlag - to say the packet being received is bad
* PacketInValidFlag - to say the packet received is complete and
valid.

I will explain what happens in PacketIn_Update:

- Check to see if the timer has wrapped. If not, quit. (The timer
wraps every 130 instructions, which is every 19231 times per
second at 10Mhz. This is about 16 * 1200)

- If the timer did wrap, set it up for the next wrap (bump forward 256-
130) and inc the packetin_count, which counts the number of ticks
at the current tone.

- Check to see if the tone changed, If not, quit

- If it did change, determine the number of bit times it was on that
tone (by adding 8 to the number of ticks, and dividing by 16)
(Remember, 16 ticks per bit time), clear the counter, and pass the
number of bit times to the UpdatePacket table lookup.

- UpdatePacket is a cool little lookup table which handles NRZI
decoding, and bit unstuffing. Basically, if we received < 1 bit time,
or > 7, that is invalid, so set the reset flag if we were in a packet,
and quit.

- If the bit time is between 1 and 7, decode as follows:
 1 bit time, shift in a 0
 2 bit times, shift in a 1 then a 0

```
 3, 1 1 0,
 4, 1 1 1 0,  (see the NRZI decoding here?)
 5, 1 1 1 1 0,
 6, 1 1 1 1 1 (here is our bit-unstuffing)
 7, we are in a flag.

- When shifting in bits (PacketIn_Add0 & PacketInAdd1), maintain
a CRC of the received bits.

- Once we shift in 8 bits, if we are valid, save the byte, set the
NewByte flag, set us active, and return

- When we receive a flag, reset the incoming byte. If not valid, and
this is our 3rd flag, we are valid.  Note: valid just means it is likely
that we are receiving valid packet data.  Since some TNCs don't
send flags during the TXD time, this may be incorrect, and should
be changed to just 1 flag.  However, this will cause many false
starts.

- If receive a flag, and are valid, but not active, just reset the CRC.
This just loops while we receive flag bytes, resetting the CRC each
time.

- If we receive a flag, and are active, if must be the end frame flag.
If the CRC is incorrect, set the Reset flag and quit.  If the CRC is
correct, packet is done!

Hope this helps.  I really liked how that UpdatePacket table solved
bit-unstuffing and deNRZIing in one shot.  It was much easier than
bit-stuffing and NRZI encoding on the send side!!

73,
Byon


_____________________________________________
 Byon Garrabrant   N6BG   byon@mail.com

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

70. [picsig] Re: PIC AX25 receive, 2nd rev

```
From: "Byon Garrabrant" <byon@mail.com>
Date: Wed, 24 May 2000 22:24:36 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86221-2000.05.25-00.27.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
On 19 May 00, at 14:26, Steve Bragg wrote:

> Guys,
>
> I found some bugs in the first one, and I added the flag sync.  Here's
> the new one.  If you have the interest, please look it over.  Anyone who
> wants may use this.
>

Steve,

  A couple of things I noticed:

- There is quire a delay between comparing PORTB to axin, and
setting PORTB to axin.  Could it change during this code and
break decoding?

- To round up when dividing by 16, you should add 8 instead of 1.
(assuming the divide truncates)

- Since you do no CRC checking, once you get the first flag (or 7
bit times of one tone)  you will start decoding everything, including
noise.  axsync never gets shut off.

Other than that, it looks correct to me.

Byon
_____________________________________________
 Byon Garrabrant   N6BG   byon@mail.com
```

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

71. [picsig] PIC-E Serial Port Possibilities?

From: "KD7DPU @ Home" <kd7dpu@home.net>
Date: Thu, 25 May 2000 06:31:44 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86281-2000.05.25-08.36.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Greetings all,

Though I have developed software for years, including some assembly level
stuff, my newbie experiences with the PIC-E are my first dealing with
hardware at this level, so pardon my ignorance if it seems obvious...

1- Is the PGM serial port wired strictly for programming? In other words,
can one program serial I/O via the PGM port just as the GPS port? (my guess
is "no" scanning the schematic and the PIC chip spec)

2- Assuming one cant perform I/O via the PGM serial port, is it possible
that the GPS port be programmed to recieve data FROM a device and transmit
data TO a device. The example I am thinking of would be:

```
        GPS IN ---->PIC-E---->AX25 (decoded from radio/modem chip) serial out
                     ^
                     |
                   RADIO
```

I would think this would be possible in that the GPS port would use the
serial RX line to recieve GPS data, leaving the TX line that could be
monitored from another device. This of course would require a special DB-9 Y
connector to sort out the TX/RX line routing.

Or am I missing something here?

If this is possible, how hard would it be to mix an echo of the GPS NMEA
data with the AX25 packets?

Robert
KD7DPU

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

72. [picsig] Re: PIC AX25 receive, 2nd rev

From: Steve Bragg <steveb@skymaster.c2-tech.com>
Date: Thu, 25 May 2000 11:06:25 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86307-2000.05.25-11.07.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

By the way, Byon, thanks for the other message in which you detailed the
operation of PACKETI.ASM.

Byon Garrabrant wrote:

> A couple of things I noticed:
>
> - There is quire a delay between comparing PORTB to axin, and
> setting PORTB to axin. Could it change during this code and
> break decoding?

A good question. I will look at it.

> - To round up when dividing by 16, you should add 8 instead of 1.
> (assuming the divide truncates)

Ah, OK.

> - Since you do no CRC checking, once you get the first flag (or 7
> bit times of one tone) you will start decoding everything, including
> noise. axsync never gets shut off.

I was only showing the interrupt service routine. The main program
would find the flags, decode the packet, and check the checksum.

Also, I didn't show the code that looks for the closing flag and turns
off axsync.

> Other than that, it looks correct to me.

Yay! Thanks.

Steve

--
Steve Bragg KA9MVA, RF Engineer
C2 Technologies, Inc.
100 Reunion Center, 9 East 4th, Tulsa, Oklahoma 74103
http://www.c2-tech.com/~steveb
ICQ:29816109

Find me with APRS! http://map.findu.com/KA9MVA-6
ITULSA control op: aprs.c2-tech.com 10151

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

73. [picsig] Re: Decoding packet on the PIC-E

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Fri, 26 May 2000 13:47:36 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86627-2000.05.26-12.40.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> Hope this helps. I really liked how that UpdatePacket table solved
> bit-unstuffing and deNRZIing in one shot. It was much easier than
> bit-stuffing and NRZI encoding on the send side!!
>
> 73,
> Byon
>

To convert NRZ to NRZI on TX side :

```
                comf    PORTA,w ; Incoming bit in PORTA_0
                xorwf   converted,f     ; NRZI converted in bit_0
```

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

74. [picsig] Re: software for oncore VP receivers

From: "Hwang, Wen-Ruey" <HWANGW@timken.com>
Date: Fri, 26 May 2000 15:07:48 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-86646-2000.05.26-14.10.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Do you know where I can order the Motorola Oncore and what the price is?

Thanks,

Wen-Ruey hwang

-----Original Message-----
From: Warren A Merkel [mailto:austin@magicnet.net]
Sent: Tuesday, May 23, 2000 3:22 PM
To: TAPR PIC Development Special Interest Group

Cc: Steve Pelletier
Subject: [picsig] Re: software for oncore VP receivers

> Does anyone know where I can get a copy of the DOC PC controller
> software for the Motorola Oncore family of GPS receivers? I picked up
> a few Oncores cheap at Dayton and want to reconfigure them.
>
> Steve
> KB9OAL
Try Ralph's site.

ftp://ftp.mindspring.com/users/rwf/gps_stuff/gps90.zip

Warren A. Merkel
kd4zdd@amsat.org
Orlando, FL

You are currently subscribed to picsig as: hwangw@timken.com
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

75. [picsig] Re: PIC AX25 receive, 2nd rev

From: "ve2lhs" <ve2lhs@sprint.ca>
Date: Sun, 28 May 2000 08:03:16 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-87015-2000.05.28-06.54.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I my name isNormand Simard from Quebec i have 4 pcboard tinytrak , i you
whrote because i cannot communicate with my com 1 and my tinytrak,i put my
firmware in the pic 16f84 and ,do you have more information,excuse me for my
english ve2lhs from Quebec city
-----Message d'origine-----
De : Byon Garrabrant <byon@mail.com>
À : TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date : jeudi 25 mai 2000 01:25
Objet : [picsig] Re: PIC AX25 receive, 2nd rev

On 19 May 00, at 14:26, Steve Bragg wrote:

> Guys,
>
> I found some bugs in the first one, and I added the flag sync. Here's
> the new one. If you have the interest, please look it over. Anyone who
> wants may use this.
>

Steve,

  A couple of things I noticed:

- There is quire a delay between comparing PORTB to axin, and
setting PORTB to axin. Could it change during this code and
break decoding?

- To round up when dividing by 16, you should add 8 instead of 1.
(assuming the divide truncates)

- Since you do no CRC checking, once you get the first flag (or 7
bit times of one tone) you will start decoding everything, including
noise. axsync never gets shut off.

Other than that, it looks correct to me.

Byon
_____
Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: ve2lhs@sprint.ca
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

76. [picsig] Fw: this may be why some web pages seem to load so slowly

From: "Brian B. Riley, KA2BQE" <brianbr@macconnect.com>
Date: Sun, 28 May 2000 10:59:13 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-87040-2000.05.28-10.00.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This is awesome ...

----- Original Message -----
From: "tooslow"
Sent: Sunday, May 28, 2000 8:52 AM
Subject: this may be why some web pages seem to load so slowly

> bloody amazing!
>
> http://152.78.65.48:2300/
>
> slo
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

77. [picsig] re: [OT} Fw: this may be why some web pages seem to load so slowly

From: Jeff King <jeff@aerodata.net>
Date: Sun, 28 May 2000 15:51:29 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-87078-2000.05.28-14.52.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Brian:

Looking at this page
I expected to see a SBC using a 386EX processor, instead we are greeted with
a discarded 386 motherboard with some old (and not very power efficient) cards
plugged into it.

In other words, little to no effort put into reducing the power footprint. I also expected
to see about a 55 gallon drum filled with potatoes, instead we see about 8 of them.
(maybe they have LiIon cells embedded in them).

In other words, with the naivety displayed on slashdot, its going to be quite some time
before they rule the world.

I'd be careful

-Jeff

P.S. Look at this web page: http://totl.net/FAQ/features/spud/ under how much energy
can you get out of a potato? The claim, which seems accurate, is 15ma at 0.8V. With
8 potatoes that is 6.4volts at 15ma. A PIC and a LED would run quite well at that power
level, even more if you watch your power management. But an old 386 motherboard?

"Brian B. Riley, KA2BQE" wrote:

> This is awesome ...
>
> ----- Original Message -----
> From: "tooslow"
> Sent: Sunday, May 28, 2000 8:52 AM
> Subject: this may be why some web pages seem to load so slowly
>
> > bloody amazing!
> >
> > http://152.78.65.48:2300/
> >
> > slo
> >
>

> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

78. [picsig] Re: software for oncore VP receivers

From: "Martin B. (No Spam/UCE/UBE Tolerated)" <chipsoft@spamcop.net>
Date: Mon, 29 May 2000 14:43:42 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-87228-2000.05.29-13.53.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi All!
        Try asking Synergy... The folks where kind enough to email me v10.0 of the
Motorola soft.
I guess that the version you want depends on how recent your GPS firmware
is...

        In need, I could email it to you.

mailto: ve2mrx at amsat.org [No Spam/UCE/UBE Tolerated]
Got Spam? Use http://spamcop.net/

-----Original Message-----
From: Warren A Merkel [mailto:austin@magicnet.net]
Sent: Tuesday, May 23, 2000 3:22 PM
To: TAPR PIC Development Special Interest Group
Cc: Steve Pelletier
Subject: [picsig] Re: software for oncore VP receivers

> Does anyone know where I can get a copy of the DOC PC controller
> software for the Motorola Oncore family of GPS receivers? I picked up
> a few Oncores cheap at Dayton and want to reconfigure them.
>
> Steve
> KB9OAL

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

June 2000

Original source file: picsig.0006
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0006

1. [picsig] 9600 baud NMEA

From: "John B. Leonard, Jr." <jleonard@tbcnet.com>
Date: Thu, 1 Jun 2000 19:27:57 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-87935-2000.06.01-19.30.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,
I've got a Rockwell GPR-450 that only puts out NMEA GGA and VTG
sentences at 9600 b/s. Will one of the PIC-E GPS programs work with
it?

Also, does anyone have any info on this thingy?

Thanks

bl
w9jbl

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: 9600 baud NMEA

From: John Hansen <john@hansen.net>
Date: Thu, 01 Jun 2000 21:25:20 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-87952-2000.06.01-20.28.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 07:27 PM 6/1/00 -0500, you wrote:
>Hi,
>I've got a Rockwell GPR-450 that only puts out NMEA GGA and VTG
>sentences at 9600 b/s. Will one of the PIC-E GPS programs work with
>it?
>
>Also, does anyone have any info on this thingy?
>
>Thanks

The code I have posted for the Trimble unit (I think it was an SVeeSix)
uses those sentences. It is at 4800 baud though. If you know someone with
a CCS C compiler, you only have to change one line of code (the #USE
RS232... line) to move it to 9600. You might also have to either add or
delete the word "invert" from that line as well.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Rockwell GPR-450 info, no luck

From: "John B. Leonard, Jr." <jleonard@tbcnet.com>
Date: Fri, 2 Jun 2000 16:58:28 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88197-2000.06.02-20.39.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Well, the nice folks at Conexant referred me to Rockwell Collins, who
referred me to a 1-800 # in Melbourne FL where I *might* be able to
ORDER a manual for it. Of course the 1-800 # was a recording telling
me the fax no. to send orders to...

Does anyone have a newsgroup or something dealing w/ GPS's where I
can go.

This thing spits out perfectly good GGA and VTG sentences that I
could use as a PIC-E tracker, but all the GPS info is at 9600 baud.
All of the PIC-E programs are for 4800, I guess. And nobody around

here has a C compiler to re-do the program for the PIC.

Maybe I should get a Rand McNally GPS. I heard they're good. It'll
probably be a lot cheaper than this project is turning out.

bl
Barry Leonard
W9JBL

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: Rockwell GPR-450 info, no luck

From: Jeff King <jeff@aerodata.net>
Date: Fri, 02 Jun 2000 22:59:31 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88235-2000.06.02-22.01.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Well, the CCS compiler is only $99..... then you can do anything you
want. The PIC-E was never intended as a end user appliance, but as a
experimental device.

See http://www.ccsinfo.com for more info on the compiler. Its a good investment,
I strongly recommend it. You'll need the PCM version for the PIC-E.

Or if you want to pass me the edited files (ready to go) I'd be happy to drop it
in the compiler and pass you the hex file. Just don't have time to run this down
myself.

-Jeff wb8wka

"John B. Leonard, Jr." wrote:

> Well, the nice folks at Conexant referred me to Rockwell Collins, who
> referred me to a 1-800 # in Melbourne FL where I *might* be able to
> ORDER a manual for it. Of course the 1-800 # was a recording telling
> me the fax no. to send orders to...
>
> Does anyone have a newsgroup or something dealing w/ GPS's where I
> can go.
>
> This thing spits out perfectly good GGA and VTG sentences that I
> could use as a PIC-E tracker, but all the GPS info is at 9600 baud.
> All of the PIC-E programs are for 4800, I guess. And nobody around
> here has a C compiler to re-do the program for the PIC.
>
> Maybe I should get a Rand McNally GPS. I heard they're good. It'll
> probably be a lot cheaper than this project is turning out.
>
> bl
> Barry Leonard
> W9JBL
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Re: Rockwell GPR-450 info, no luck

From: Doug Bade <doug@ohioaprs.net>
Date: Sat, 03 Jun 2000 11:13:44 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88321-2000.06.03-10.16.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

yes I can probably fix the code, we compiled the trimble version when we
needed to patch it.. does your unit output ttl or rs232.. we can recompile
for 9600.. let me know.   doug kb8gvq

At 04:58 PM 6/2/00 -0500, you wrote:
>Well, the nice folks at Conexant referred me to Rockwell Collins, who
>referred me to a 1-800 # in Melbourne FL where I *might* be able to
>ORDER a manual for it. Of course the 1-800 # was a recording telling
>me the fax no. to send orders to...
>
>Does anyone have a newsgroup or something dealing w/ GPS's where I
>can go.
>
>This thing spits out perfectly good GGA and VTG sentences that I
>could use as a PIC-E tracker, but all the GPS info is at 9600 baud.
>All of the PIC-E programs are for 4800, I guess. And nobody around
>here has a C compiler to re-do the program for the PIC.
>
>Maybe I should get a Rand McNally GPS. I heard they're good. It'll
>probably be a lot cheaper than this project is turning out.
>
>
>bl
>Barry Leonard
>W9JBL
>
>
>
>---
>You are currently subscribed to picsig as: doug@clecom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: Rockwell GPR-450 info, no luck

From: Doug Bade <doug@ohioaprs.net>
Date: Sat, 03 Jun 2000 11:18:54 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88323-2000.06.03-10.21.55--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Well that is not totally correct.. if you do not use the version John did,
the windows GUI mangles the result and it will not run. It creates an
different offset in data. I did just that and ended up getting a second
version same as John's to recompile so it would run.
then all was well... 73, doug kb8gvq

At 10:59 PM 6/2/00 -0400, you wrote:
>Well, the CCS compiler is only $99..... then you can do anything you
>want. The PIC-E was never intended as a end user appliance, but as a
>experimental device.
>
>See   http://www.ccsinfo.com for more info on the compiler. Its a good
>investment,
>I strongly recommend it. You'll need the PCM version for the PIC-E.
>
>Or if you want to pass me the edited files (ready to go) I'd be happy to
>drop it
>in the compiler and pass you the hex file. Just don't have time to run
>this down
>myself.
>
>-Jeff wb8wka
>
>
>"John B. Leonard, Jr." wrote:
>
> > Well, the nice folks at Conexant referred me to Rockwell Collins, who
> > referred me to a 1-800 # in Melbourne FL where I *might* be able to
> > ORDER a manual for it. Of course the 1-800 # was a recording telling
> > me the fax no. to send orders to...
> >
> > Does anyone have a newsgroup or something dealing w/ GPS's where I
> > can go.
> >
> > This thing spits out perfectly good GGA and VTG sentences that I

> > could use as a PIC-E tracker, but all the GPS info is at 9600 baud.
> > All of the PIC-E programs are for 4800, I guess. And nobody around
> > here has a C compiler to re-do the program for the PIC.
> >
> > Maybe I should get a Rand McNally GPS. I heard they're good. It'll
> > probably be a lot cheaper than this project is turning out.
> >
> > bl
> > Barry Leonard
> > W9JBL
> >
> > ---
> > You are currently subscribed to picsig as: jeff@aerodata.net
> > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
>---
>You are currently subscribed to picsig as: doug@clecom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Re: Rockwell GPR-450 info, no luck

From: Jeff King <jeff@aerodata.net>
Date: Sat, 03 Jun 2000 18:51:01 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88410-2000.06.03-17.52.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Whats not totally correct?

Last time I spoke with John, he had the $99 version. Even if you have the
Windows GUI, you also have the $99 DOS version. Just run it from
DOS, its still there.

-Jeff

Doug Bade wrote:

> Well that is not totally correct.. if you do not use the version John did,
> the windows GUI mangles the result and it will not run. It creates an
> different offset in data. I did just that and ended up getting a second
> version same as John's to recompile so it would run.
> then all was well... 73, doug kb8gvq
>
> At 10:59 PM 6/2/00 -0400, you wrote:
> >Well, the CCS compiler is only $99..... then you can do anything you
> >want. The PIC-E was never intended as a end user appliance, but as a
> >experimental device.
> >
> >See   http://www.ccsinfo.com for more info on the compiler. Its a good
> >investment,
> >I strongly recommend it. You'll need the PCM version for the PIC-E.
> >
> >Or if you want to pass me the edited files (ready to go) I'd be happy to
> >drop it
> >in the compiler and pass you the hex file. Just don't have time to run
> >this down
> >myself.
> >
> >-Jeff wb8wka
> >
> >
> >"John B. Leonard, Jr." wrote:
> >
> > > Well, the nice folks at Conexant referred me to Rockwell Collins, who
> > > referred me to a 1-800 # in Melbourne FL where I *might* be able to
> > > ORDER a manual for it. Of course the 1-800 # was a recording telling
> > > me the fax no. to send orders to...
> > >
> > > Does anyone have a newsgroup or something dealing w/ GPS's where I
> > > can go.
> > >
> > > This thing spits out perfectly good GGA and VTG sentences that I
> > > could use as a PIC-E tracker, but all the GPS info is at 9600 baud.

> > > All of the PIC-E programs are for 4800, I guess. And nobody around
> > > here has a C compiler to re-do the program for the PIC.
> > >
> > > Maybe I should get a Rand McNally GPS. I heard they're good. It'll
> > > probably be a lot cheaper than this project is turning out.
> > >
> > > bl
> > > Barry Leonard
> > > W9JBL
> > >
> > > ---
> > > You are currently subscribed to picsig as: jeff@aerodata.net
> > > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> >
> >
> >---
> >You are currently subscribed to picsig as: doug@clecom.com
> >To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Fwd: GPS-E-2f

From: "Ray J. Vaughan" <ray@rayvaughan.com>
Date: Sat, 03 Jun 2000 22:02:37 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88426-2000.06.03-21.05.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I posted this a while ago and didn't get any response. Since I was having trouble with my new net connection, something could have gotten lost.

Does anyone have any advice on where to go next? It looks like I'm at a dead end.

>Date: Wed, 24 May 2000 20:55:30 -0400
>To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>From: "Ray J. Vaughan" <ray@rayvaughan.com>
>Subject: GPS-E-2f
>
>I'm making my first attempts at making the PIC-E work.
>
>The kit is built, the diag and diag2 programs work flawlessly. I'm now trying to load tracking firmware using the GPS-E-2f software. I've made the modifications using the program. I have NO clue what ' quiet time' or ' slow speed access ' mean, but I left them set at '1'.
>
>I sometimes can't load with the program, so I do an output file and load it with PicProg. I connect everything up, then power it up. In my config, powering up the PIC also powers up the GPS, so there's a delay before the GPS locks up and starts sending data. I get the half second blink on the Valid LED at power up. So far, so good.
>
>I hear packets on the radio, but no Active light. I wait. Nothing. Then I pull JP4 and replace it. That seems to fix the Active light. Why?
>
>The GPS is locked. No Valid light. After a few power cycles, I get the Valid light. I disconnect the GPS. Valid light stays on. Does that mean I can't trust it?
>
>Also, in my config, there's no microphone. Do I need to put something in to force the Mic PTT high or low? I'm using a Magellan GPS 3000. I do want an output with a GLL string in it, right? 4800 bps?
>
>I've yet to get a PTT light. Manual or auto. No valid transmissions yet.
>
>What am I doing wrong?
>
>Thanks.

Ray J. Vaughan, MS, CBTE, CERT
KD4BBM PG-7-15266
http://www.rayvaughan.com/
ray@rayvaughan.com
ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Fwd: GPS-E-2f

From: "Ray J. Vaughan" <ray@rayvaughan.com>
Date: Sun, 04 Jun 2000 02:27:09 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88470-2000.06.04-01.30.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I found it!

I should have used NEMA 0183B. I thought I needed GLL, so I had been trying 0183A and C. Almost by accident, I tried B. That got me the Valid LED and everything fell into place.

On my GPS, B has RMC and RMB. I see that RMC has time. Now it all makes sense, the PIC circuit needs time since it has no clock on board. That's what the timers are based on. Something about the programming with this software requires time from the very beginning. PICE95 on the other hand runs, but gives you a warning that GPS data is missing. That was the clue I needed. GPS-E-2f MUST have a valid time string before it will even finish booting. Even the activity LED is dead until it sees that valid time string.

Makes perfect sense now. Just don't know why it took me 3 nights to figure it out. If anyone else is having the same problem (I think at least one person was) make SURE the RMC string is getting to the PIC-E. Make sure you have a lock on the GPS so you know the time string is valid.

A suggestion if there's room.... If there's valid GPS data, send out at least one warning message. That would really help troubleshooting.

Look for KD4BBM-14. I'm the local I-GATE so you should be able to see me on the servers.

Thanks!

>Date: Sat, 03 Jun 2000 22:02:37 -0400
>To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>From: "Ray J. Vaughan" <ray@rayvaughan.com>
>Subject: Fwd: GPS-E-2f
>
>I posted this a while ago and didn't get any response. Since I was having trouble with my new net connection, something could have gotten lost.
>
>Does anyone have any advice on where to go next? It looks like I'm at a dead end.
>
>>Date: Wed, 24 May 2000 20:55:30 -0400
>>To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>>From: "Ray J. Vaughan" <ray@rayvaughan.com>
>>Subject: GPS-E-2f
>>
>>I'm making my first attempts at making the PIC-E work.
>>
>>The kit is built, the diag and diag2 programs work flawlessly. I'm now trying to load tracking firmware using the GPS-E-2f software. I've made the modifications using the program. I have NO clue what ' quiet time' or ' slow speed access ' mean, but I left them set at '1'.
>>
>>I sometimes can't load with the program, so I do an output file and load it with PicProg. I connect everything up, then power it up. In my config, powering up the PIC also powers up the GPS, so there's a delay before the GPS locks up and starts sending data. I get the half second blink on the Valid LED at power up. So far, so good.
>>
>>I hear packets on the radio, but no Active light. I wait. Nothing. Then I pull JP4 and replace it. That seems to fix the Active light. Why?
>>
>>The GPS is locked. No Valid light. After a few power cycles, I get the Valid light. I disconnect the GPS. Valid light stays on. Does that mean I can't trust it?
>>
>>Also, in my config, there's no microphone. Do I need to put something in to force the Mic PTT high or low? I'm using a Magellan GPS 3000. I do want an output with a GLL string in it, right? 4800 bps?

>>
>>I've yet to get a PTT light. Manual or auto. No valid transmissions yet.
>>
>>What am I doing wrong?
>>
>>Thanks.

Ray J. Vaughan, MS, CBTE, CERT
KD4BBM PG-7-15266
http://www.rayvaughan.com/

ray@rayvaughan.com
ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Re: Fwd: GPS-E-2f

From: Ian Wade <Ian.Wade@care4free.net>
Date: Sun, 4 Jun 2000 10:09:47 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88485-2000.06.04-04.14.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-88470-2000.06.04-01.30.06--Ian.Wade#care4free.net@l
ists.tapr.org>, Ray J. Vaughan <ray@rayvaughan.com> writes
>I found it!
>
>I should have used NEMA 0183B. I thought I needed GLL, so I had been trying
>0183A and C.

Can anyone point me to the spec for 0183B? (ideally without having to
pay for it :-))

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification
                    ********* Third draft now available *********
--
+---+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html|
| APRS DECODER: http://www.netro.co.uk/aprs.htm |
+---+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] Re: Rockwell GPR-450 info, no luck

From: Doug Bade <doug@ohioaprs.net>
Date: Sun, 04 Jun 2000 20:15:42 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88656-2000.06.04-19.18.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

If you compile the program with any version of pcm newer than his version ,
the output hex file will be munged the first time you run the windows
config gui, which is the only user interface for the software. the
by-product hex file if loaded into the PIC E will NOT function AT ALL.... I
own 3 separate versions of PCM at this point and only the old one creates a
.hex file which is useable. I assume most people never attempted to modify
his code as this would have surfaced publicly sooner. I have compiled
several files for people over time since then for their version needed..
Just buy the CCS compiler is not the answer, as they will only provide the
newest release...which will be incompatible...
73, doug kb8gvq

At 06:51 PM 6/3/00 -0400, you wrote:
>Whats not totally correct?
>
>Last time I spoke with John, he had the $99 version. Even if you have the
>Windows GUI, you also have the $99 DOS version. Just run it from
>DOS, its still there.
>
>-Jeff
>
>
>Doug Bade wrote:
>
> > Well that is not totally correct.. if you do not use the version John did,
> > the windows GUI mangles the result and it will not run. It creates an
> > different offset in data. I did just that and ended up getting a second
> > version same as John's to recompile so it would run.

> > then all was well... 73, doug kb8gvq
> >
> > At 10:59 PM 6/2/00 -0400, you wrote:
> > >Well, the CCS compiler is only $99..... then you can do anything you
> > >want. The PIC-E was never intended as a end user appliance, but as a
> > >experimental device.
> > >
> > >See   http://www.ccsinfo.com for more info on the compiler. Its a good
> > >investment,
> > >I strongly recommend it. You'll need the PCM version for the PIC-E.
> > >
> > >Or if you want to pass me the edited files (ready to go) I'd be happy to
> > >drop it
> > >in the compiler and pass you the hex file. Just don't have time to run
> > >this down
> > >myself.
> > >
> > >-Jeff wb8wka
> > >
> > >
> > >"John B. Leonard, Jr." wrote:
> > >
> > > > Well, the nice folks at Conexant referred me to Rockwell Collins, who
> > > > referred me to a 1-800 # in Melbourne FL where I *might* be able to
> > > > ORDER a manual for it. Of course the 1-800 # was a recording telling
> > > > me the fax no. to send orders to...
> > > >
> > > > Does anyone have a newsgroup or something dealing w/ GPS's where I
> > > > can go.
> > > >
> > > > This thing spits out perfectly good GGA and VTG sentences that I
> > > > could use as a PIC-E tracker, but all the GPS info is at 9600 baud.
> > > > All of the PIC-E programs are for 4800, I guess. And nobody around
> > > > here has a C compiler to re-do the program for the PIC.
> > > >
> > > > Maybe I should get a Rand McNally GPS. I heard they're good. It'll
> > > > probably be a lot cheaper than this project is turning out.
> > > >
> > > > bl
> > > > Barry Leonard
> > > > W9JBL
> > > >
> > > > ---
> > > > You are currently subscribed to picsig as: jeff@aerodata.net
> > > > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> > >
> > >
> > >---
> > >You are currently subscribed to picsig as: doug@clecom.com
> > >To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> >
> > ---
> > You are currently subscribed to picsig as: jeff@aerodata.net
> > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
>---
>You are currently subscribed to picsig as: doug@clecom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Can't get tracker working with GPS-E-2f

From: "Ted McArthur" <tmac4@uswest.net>
Date: Sun, 4 Jun 2000 20:35:48
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88664-2000.06.04-20.38.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have been trying to get this tracker to work for several months. I am
using a Garmin GPS III Plus set in the MEMA mode at 4800 baud. I have one
of my freinds that says he can see my tracker with win aprs but he is the
only one out of about 30 people I know that says he can see it. Today I
upgraded to ver. f from a I can here what seems to be digital signal
comming into my home station using Kantronics 3 Plus. I have watched the
both in the terminal mode and also went to Hyper term and watched but don't

see anything. Nost of the time I have to cycle power for it to xmit I
havn't been able to see if it is xmiting every few min. by itself. Prior to
me reloading the new software I would see it transmit mycall and a few
ascii characters but winaprs never reconized any of it.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Re: Can't get tracker working with GPS-E-2f

From: Ray Vaughan <ray@rayvaughan.com>
Date: Sun, 04 Jun 2000 21:51:44 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88669-2000.06.04-20.54.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 08:35 PM 6/4/00 +0000, you wrote:
>I have been trying to get this tracker to work for several months. I am
>using a Garmin GPS III Plus set in the MEMA mode at 4800 baud. I have one
>of my freinds that says he can see my tracker with win aprs but he is the
>only one out of about 30 people I know that says he can see it. Today I
>upgraded to ver. f from a I can here what seems to be digital signal
>comming into my home station using Kantronics 3 Plus. I have watched the
>both in the terminal mode and also went to Hyper term and watched but don't
>see anything. Nost of the time I have to cycle power for it to xmit I
>havn't been able to see if it is xmiting every few min. by itself. Prior to
>me reloading the new software I would see it transmit mycall and a few
>ascii characters but winaprs never reconized any of it.

This software seems to be very dependant on getting valid RMC strings. Hook up a laptop with a comm program. Make sure you see sentances starting with RMC. NEMA mode isn't enough... there has to be an RMC.

What you've seen so far could just be noise generated at power up. Do you let the GPS lock up before you turn on the PIC-E?

BTW, I use PICprog to upload the hex, not the program itself. Just use the program to generate the hex, then upload it using PICprog. I think PICprog gets the serial port to work better. From the sound of it, we're on the edge of specs for RS-232 ports when we program the PICs. Seems like teh PICprog does it better.

Ray J. Vaughan, MS, CBTE, CERT
KD4BBM PG-7-15266
http://www.rayvaughan.com/
ray@rayvaughan.com
ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: 9600 baud NMEA

From: "Byon Garrabrant" <byon@mail.com>
Date: Mon, 5 Jun 2000 19:33:24 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-88935-2000.06.05-21.38.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 1 Jun 00, at 21:25, John Hansen wrote:

> At 07:27 PM 6/1/00 -0500, you wrote:
> >Hi,
> >I've got a Rockwell GPR-450 that only puts out NMEA GGA and VTG
> >sentences at 9600 b/s. Will one of the PIC-E GPS programs work with it?
> >
> >Also, does anyone have any info on this thingy?
> >
> >Thanks
>
>
> The code I have posted for the Trimble unit (I think it was an SVeeSix)
> uses those sentences. It is at 4800 baud though. If you know someone
> with a CCS C compiler, you only have to change one line of code (the #USE
> RS232... line) to move it to 9600. You might also have to either add or
> delete the word "invert" from that line as well.
>
> John W2FS
>

My code (pice095.zip) is also written assuming 4800 baud, but it is
a trivial change as well to read 9600. The assembler is available
from microchip.com, as well as tapr.org

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] APRS DECODER version 2.0 now available

From: Ian Wade <Ian.Wade@care4free.net>
Date: Tue, 20 Jun 2000 16:47:57 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-91998-2000.06.20-10.53.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

==================================
ANNOUNCING <APRSdec>TM Version 2.0
THE FULL APRS DECODER PROGRAM
by Ian Wade, G3NRW
16 June 2000
==================================

<APRSdec> version 2.0 is now available. <APRSdec> parses APRS packets in
TNC/IGate output format or UI-View log format, producing a full decode of every
data element in each packet.

<APRSdec> is a particularly useful tool for:

  o APRS software development and testing.

  o PIC development and testing.

  o Network fault-finding and diagnostics.

  o Learning about the APRS protocol.

  o Checking packet formats.

<APRSdec> version 2.0 is a significant enhancement over earlier versions. It
has much improved error checking, and for the first time is provided as a Perl 4
source, allowing it to run on most platforms including DOS, Windows and Linux/
Unix.

<APRSdec> is made available under GNU General Public License.

<APRSdec> is a trademark owned by Ian Wade, G3NRW.

==================
<APRSdec> FEATURES
==================

  o Runs under native DOS, Win 95/98 and Linux/Unix. (It will almost
     certainly run under Windows NT and Windows 2000 as well, but this
     has not been tested).

  o Accepts raw input in TNC/IGate output format (TNC_header:data).

  o Accepts raw input in UI-View 2-line log format; it is no longer
     necessary to edit log files before using <APRSdec>. In addition,
     as well as decoding APRS packets, <APRSdec> also decodes the 15-digit
     UI-View timestamp.

  o Performs rigorous format checking, with detailed error reporting.

  o Understands position ambiguity, reporting the bounding box in which
     the station is located.

  o Compares lat/long position against a prefix/country database -- if
     the station's position appears to be outside the country, <APRSdec>
     reports a possible anomaly.

  o Reports data values in imperial, nautical and metric units.

- Fully decodes Mic-E and compressed position formats.

- Recognizes data from Kenwood TH-D7 and DM-700 radios, and changes the incorrect DM-700 APRS Data Type Identifier to "Current Mic-E Data".

- Provides detailed weather station reports, including the calculation of windchill and dew point.

- Decodes storm data.

- Decodes bearing and range data.

- Decodes DX Cluster reports, showing the data as it will appear on TH-D7 and DM-700 screens.

```
================================
SOME EXAMPLES OF <APRSdec> OUTPUT
================================

A simple lat/long report:
------------------------------------------------------------
Record #170
KE4SZT>APRS,W4NHV-9,WIDE*,WIDE/2:@270700z3408.76N/07924.60W-  John in Marion, SC-793-
 APRS Data Type= Posit w/ time. With APRS
 Day= 27  Time= 07 hours 00 mins UTC
 Lat= 34 deg 08.76 min N  Long= 79 deg 24.60 min W
 Icon= House QTH VHF   Overlay= (none)

------------------------------------------------------------


A raw Mic-E report. <APRSdec> recognizes this comes from a
Kenwood TM-D700 radio and automatically changes the APRS Data
Type to "Current Mic-E data":
------------------------------------------------------------
Record #8051
KC7EQL>VE7VAN-3*>WIDE3-1>T8PWPW:'37]lIe-/]"55}Mark at Home awaits Sunsat
 APRS Data Type= Current Mic-E data
 Radio= Kenwood TM-D700
 Message Type= /M2/In Service
 Lat= 48 deg 07.07 min N  Long= 123 deg 27.65 min W
 Icon= House QTH VHF   Overlay= (none)
 Course= 173 deg   Speed= 4 knots (4.6 mph  7.4 kph  2.1 m/s)
 Altitude= 397 feet (121 meters)

------------------------------------------------------------


A compressed lat/long position, within an Object report:
------------------------------------------------------------
Record #1763
N9IDH>APRK11,AE9A-10*,WIDE3-2:;AO16     _111826z\%H+!JvA!Sk{!R=05280/437.051/13Khz/APRStk
 APRS Data Type= Object
 Object Name= 'AO16     '  Object Status= Killed
 Day= 11  Time= 18 hours 26 mins UTC
 Lat= 81 deg 14.20 min N  Long= 14 deg 04.30 min W
 GPS Fix= Old (last)   NMEA Source= Other   Compression Origin= Compressed
 Course= 296 deg   Speed= 1018 knots (1171.5 mph  1885.3 kph  523.7 m/s)
 Icon= Satellite/PAC   Overlay= (none)

------------------------------------------------------------


A lat/long report with position ambiguity. The station may be
located anywhere inside the bounding box:
------------------------------------------------------------
Record #121
W9ZGU>APR846,WA4WHD-3*,WIDE/V:=2559.  N/08010.  W-PHG6560/Carl's Castle!
 APRS Data Type= Posit w/o time. With APRS
 Ambiguous position. Opposite corners of bounding box:
  NW Corner: Lat= 25 deg 59.99 min N  Long= 80 deg 10.99 min W
  SE Corner: Lat= 25 deg 59.00 min N  Long= 80 deg 10.00 min W
 Icon= House QTH VHF   Overlay= (none)
 Power= 36 watts   Height above average terrain= 320 feet (97.5 meters)
 Gain= 6 dB   Range Circle= 41.4 miles (66.6 km)   Directivity= Omni-directional

------------------------------------------------------------
```

```
A Maidenhead Locator report. The station may be located anywhere
inside the bounding box:
------------------------------------------------------------
Record #459
CT1DBH-1>ID:[IM58IS]
 APRS Data Type= Maidenhead Grid Square
 Maidenhead locator bounding box:
  NW Corner: Lat= 38 deg 47.50 min N  Long= 9 deg 20 min W
  SE Corner: Lat= 38 deg 45.00 min N  Long= 9 deg 15 min W
**NOTE: This Maidenhead format with square brackets is obsolete.

------------------------------------------------------------


A UI-View report, including the decoded UI-View timestamp.
(This report shows APRS Working Group Chairman John Ackermann,
N8UR, jogging towards G3NRW's QTH at over 72mph -- he was on a
train at the time! <APRSdec> also recognizes that John is
outside the contiguous 48 states, so it questions the reported
location):
------------------------------------------------------------
Record #622
N8UR-7*>RELAY>WIDE>WIDE>WIDE2-2>U1UVXX (UI):`v9f">[/>"58}
 UI-View Timestamp= 27 May 2000   12 hrs 58 mins 32 secs (PC clocktime)
 APRS Data Type= Current Mic-E data
 Radio= Kenwood TH-D7
 Message Type= /M2/In Service
 Lat= 51 deg 56.88 min N  Long= 0 deg 29.74 min W
**QUESTION: Is this lat/long position reasonable?
            It seems a long way from home for this callsign.
 Icon= Jogger   Overlay= (none)
 Course= 1 deg   Speed= 63 knots (72.5 mph  116.7 kph  32.4 m/s)
 Altitude= 407 feet (124 meters)

------------------------------------------------------------


A full WX station report, with computed windchill and dewpoint:
------------------------------------------------------------
Record #5034
KF0ZH*>APR819,GATE,WIDE2-2:@111955z4447.06N/09329.48W_125/008g009t079r000p003....h41b10190dU2k
 APRS Data Type= Posit w/ time. With APRS
 Day= 11  Time= 19 hours 55 mins UTC
 Lat= 44 deg 47.06 min N  Long= 93 deg 29.48 min W
 Icon= WX station   Overlay= (none)
 Wind Direction= 125 deg   Speed= 008 knots (9.2 mph  14.8 kph  4.1 m/s)
 Gust Speed= 9 mph (14.5 kph  4.0 m/s  7.8 knots)
 Temp= 79 degF (26.1 degC)   Windchill= 76.5 degF (24.7 degC)
 Rain: Last hour= 0 in (0.0 mm)   Last 24 hrs= 0.03 in (0.8 mm)
       Since midnight= (Indeterminate)
 Humidity= 41 percent   Dew Point= 53.2 degF (11.8 degC)
 Barometric Pressure= 1019 mbar/hP

------------------------------------------------------------


A DX Cluster report, showing how the data will appear on
Kenwood radio displays:
------------------------------------------------------------
Record #3852
NA4V-3>RESORC,AB4KN-2*,WIDE3-2:DX de NA4V-3   >FO29@1509 FO20@1503
SATS
 DX Cluster Information:

   TH-D7 Screen 1     TH-D7 Screen 2               TM-D700
 +---------------+  +---------------+   +----------------------------+
 | Dx:FO20@1503  |  | Dx:FO20@1503  |   | 1:FO20@1503 FO29@1509  SATS|
 | FO29@1509     |  |               |   |                            |
 |          SATS |  |               |   |                            |
 +---------------+  +---------------+   |                            |
                                        +----------------------------+

------------------------------------------------------------


==================
TO OBTAIN <APRSdec>
==================
```

<APRSdec> may be downloaded from http://www.netro.co.uk/aprs.htm. There are
two distribution files: "aprsdecd.zip" for DOS/Windows and "aprsdecu.tar" for
Unix/Linux. The DOS/Windows distribution includes a suitable Perl compiler.

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+--+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html |
| <APRSdec> APRS DECODER: http://www.netro.co.uk/aprs.htm |
+--+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] aprs deconding

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Wed, 21 Jun 2000 01:10:33 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92074-2000.06.20-19.14.16--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello people!

I am generating aprs packets with a pic weather station, and i am getting into the aprs worldwide
net.
You can see my weather station here in Portugal.

Do ever experienced a problem, in a TH-D7 not to decoded packet from a pic and a fx614 ??
everyone seems to decode, but every D7 that i tested didnt decoded the beacon.
Strange??

Thanks for your ideas !

73 de CT2GPW
Antonio Sergio Sena

António Sérgio Sena
hamradio: CT2GPW   "They say a city in the desert lies
asena@bigfoot.com   The vanity of an ancient king
Tel:351967033209   With every prison blown to dust
Electronics and   My enemies walk free
Robotics Graduated   Though all my kingdoms turn to sand
Student from Anfei   And fall into the sea
 - Siemens   I am mad about you"

Homepage: www.qsl.net/ct2gpw
                planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] Re: aprs deconding

From: Ian Wade <Ian.Wade@care4free.net>
Date: Wed, 21 Jun 2000 05:42:21 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92109-2000.06.20-23.50.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR14796-92074-2000.06.20-19.14.16--Ian.Wade#care4free.net@l
ists.tapr.org>, Antonio Sergio Sena <asena@bigfoot.com> writes
>Hello people!
>
>I am generating aprs packets with a pic weather station, and i am getting into
>the aprs worldwide
>net.
>You can see my weather station here in Portugal.
>

>Do ever experienced a problem, in a TH-D7 not to decoded packet from a pic and a
>fx614 ??
>everyone seems to decode, but every D7 that i tested didnt decoded the beacon.
>Strange??
>
>Thanks for your ideas !
>

Hi Antonio. Can you give us an example of a packet that the TH-D7 does
not understand?

73
Ian, G3NRW
Technical Editor, APRS Protocol Specification

--
+--+
| APRS on 144.800 [IO91SX]   ~55km/35 miles NNW of London |
| email: g3nrw@arrl.net |
| |
| APRS PROTOCOL SPEC: http://www.tapr.org/tapr/html/Faprswg.html |
| <APRSdec> APRS DECODER: http://www.netro.co.uk/aprs.htm |
+--+

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] Re: aprs deconding

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Wed, 21 Jun 2000 08:05:18 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92162-2000.06.21-07.09.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 21 Jun 2000, Antonio Sergio Sena wrote:

> Do ever experienced a problem, in a TH-D7 not to decoded packet from a pic and a fx614 ??
> everyone seems to decode, but every D7 that i tested didnt decoded the beacon.
> Strange??

Look at the received tones on a scope. It sounds like the HIGH tone is
over-premphasized. The kenwoods do not like tones that have been too much
premphasized. Try rolling off the high tone a bit on the PIC..

Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: aprs deconding

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Thu, 22 Jun 2000 02:53:13 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92302-2000.06.21-20.57.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Ian !!

> Hi Antonio. Can you give us an example of a packet that the TH-D7 does not
> understand?

It doesnt understand all the packets that i generate.
If there is another aprs station broadcasting, the D7 only decodes the other station, while it gets
nothing from me.

Thanks.

António Sérgio Sena
hamradio: CT2GPW   "They say a city in the desert lies
asena@bigfoot.com   The vanity of an ancient king
Tel:351967033209   With every prison blown to dust
Electronics and   My enemies walk free

```
Robotics Graduated        Though all my kingdoms turn to sand
Student from Anfei          And fall into the sea
 - Siemens                     I am mad about you"

Homepage: www.qsl.net/ct2gpw
                 planeta.clix.pt/teil97

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

20. [picsig] Re: aprs deconding

```
From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Thu, 22 Jun 2000 02:53:13 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92301-2000.06.21-20.56.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
Hello Bob!

Thanks for the quick answer !!

> premphasized.  Try rolling off the high tone a bit on the PIC..

What do you mean by "rolling off" ??

Thanks!



António Sérgio Sena
hamradio: CT2GPW       "They say a city in the desert lies
asena@bigfoot.com        The vanity of an ancient king
Tel:351967033209          With every prison blown to dust
Electronics and              My enemies walk free
Robotics Graduated        Though all my kingdoms turn to sand
Student from Anfei          And fall into the sea
 - Siemens                     I am mad about you"

Homepage: www.qsl.net/ct2gpw
                 planeta.clix.pt/teil97

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

21. [picsig] Re: aprs deconding

```
From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Thu, 22 Jun 2000 09:01:25 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92372-2000.06.22-08.05.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
On Thu, 22 Jun 2000, Antonio Sergio Sena wrote:

> Hi Ian !!
>
> > Hi Antonio. Can you give us an example of a packet that the TH-D7 does not
> > understand?
>
> It doesnt understand all the packets that i generate.
> If there is another aprs station broadcasting, the D7 only decodes the
> other station, while it gets
> nothing from me.

Look at the difference of the tones on a scope and the difference should
be easy to see.  Let us know what you find out...

bob



---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

22. [picsig] Re: aprs deconding

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Thu, 22 Jun 2000 09:05:04 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92373-2000.06.22-08.08.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 22 Jun 2000, Antonio Sergio Sena wrote:

> > premphasized. Try rolling off the high tone a bit on the PIC..
>
> What do you mean by "rolling off" ??

Put an R/C filter between the PIC output and the transmitter. Choose the
value of R and C so that the high tone is reduced in amplitude by about 3
dB. That will put it about midway between what the Kenwood needs and what
others that use premepasis and depmhasis use...

bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] Re: aprs deconding

From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 22 Jun 2000 08:04:11 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92374-2000.06.22-08.09.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>Look at the difference (in amplitude) of the tones on a scope and the
>difference should
>be easy to see. Let us know what you find out...
>
>bob

--

www.SpamWhack.com A pre-emptive strike against spam
A tornado is a lady whose skirts you do NOT want to look up!
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] Re: aprs deconding

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Thu, 22 Jun 2000 22:57:55 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92465-2000.06.22-17.01.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> Put an R/C filter between the PIC output and the transmitter. Choose the
> value of R and C so that the high tone is reduced in amplitude by about 3
> dB. That will put it about midway between what the Kenwood needs and what
> others that use premepasis and depmhasis use...
>
Bob !!

I am using an FX614 modem chip too !! thats why i find weird the chip sending lowder tones.
I'll put an RC filter to test it.

Thanks

António Sérgio Sena
hamradio: CT2GPW
asena@bigfoot.com
Tel:351967033209
Electronics and
Robotics Graduated
Student from Anfei

"They say a city in the desert lies
The vanity of an ancient king
With every prison blown to dust
My enemies walk free
Though all my kingdoms turn to sand
And fall into the sea

```
 - Siemens                      I am mad about you"

Homepage: www.qsl.net/ct2gpw
                planeta.clix.pt/teil97

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

25. [picsig] Re: aprs deconding

```
From: Jeff King <jeff@aerodata.net>
Date: Thu, 22 Jun 2000 18:07:57 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92467-2000.06.22-17.09.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
Antonio Sergio Sena wrote:

>
> I am using an FX614 modem chip too !!  thats why i find weird the chip sending lowder tones.
> I'll put an RC filter to test it.

Maybe just turn the deviation down, I understand the Kenwood products don't always have
the proper rolloff   AND if you over driving on your end, that could make a bad situation worse.

I think with the first PIC-E's, the TX audio was going to the top of the deviation pot, meaning
that you very easily could overdrive the transmitter, later ones had a dropping resistor to
give a better range. Still, not hard to overdrive a HT or radio if using the MIC input.

Turn your deviation down on the PIC-E  (you should notice large drop in audio level) and
I bet the Kenwood will start to work.

-Jeff


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

26. [picsig] Re: aprs deconding

```
From: David VanHorn <dvanhorn@cedar.net>
Date: Thu, 22 Jun 2000 17:11:20 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92468-2000.06.22-17.17.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
>
>Turn your deviation down on the PIC-E  (you should notice large drop in
>audio level) and
>I bet the Kenwood will start to work.
>
>-Jeff


I would second that. One thing these modem chips are very tolerant of is
level, up to a point.
Some have ranges of 10-20dB, but if you get too high, it's game over.
Measure your levels, put it in mid spec, and go from there.

--

www.SpamWhack.com  A pre-emptive strike against spam
A tornado is a lady whose skirts you do NOT want to look up!
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

27. [picsig] Re: aprs deconding

```
From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Thu, 22 Jun 2000 23:30:36 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92471-2000.06.22-17.34.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

> Maybe just turn the deviation down, I understand the Kenwood products
> don't always have the proper rolloff   AND if you over driving on your
> end, that could make a bad situation worse.
>
> I think with the first PIC-E's, the TX audio was going to the top of the
> deviation pot, meaning that you very easily could overdrive the
> transmitter, later ones had a dropping resistor to give a better range.
> Still, not hard to overdrive a HT or radio if using the MIC input.
>
> Turn your deviation down on the PIC-E (you should notice large drop in
> audio level) and I bet the Kenwood will start to work.

Deviation??
You mean turn the output audio down ???

António Sérgio Sena
hamradio: CT2GPW
asena@bigfoot.com
Tel:351967033209
Electronics and
Robotics Graduated
Student from Anfei
 - Siemens

"They say a city in the desert lies
The vanity of an ancient king
With every prison blown to dust
My enemies walk free
Though all my kingdoms turn to sand
And fall into the sea
I am mad about you"

Homepage: www.qsl.net/ct2gpw
planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] Re: aprs deconding

From: Jeff King <jeff@aerodata.net>
Date: Thu, 22 Jun 2000 18:41:32 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92472-2000.06.22-17.43.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Antonio Sergio Sena wrote:

> >> Turn your deviation down on the PIC-E (you should notice large drop in
> > audio level) and I bet the Kenwood will start to work.
>
> Deviation??
> You mean turn the output audio down ???

Yes.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] aprs decoding

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Fri, 23 Jun 2000 00:58:34 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92481-2000.06.22-19.02.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ok people...

I tested several conditions.
I tried an RC filter. Tried another radio for emition. Lowered the output audio to the maximum allowed.....nothing.
Nothing.
I havent scoped it yet. I dont have one. Have to borrow from someone. Then i can tune the RC filter.....maybe then.
But for now, the problem persists.

Cheers !

António Sérgio Sena

hamradio: CT2GPW "They say a city in the desert lies
asena@bigfoot.com The vanity of an ancient king
Tel:351967033209 With every prison blown to dust
Electronics and My enemies walk free
Robotics Graduated Though all my kingdoms turn to sand
Student from Anfei And fall into the sea
- Siemens I am mad about you"

Homepage: www.qsl.net/ct2gpw
planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] Re: aprs decoding

From: Jeff King <jeff@aerodata.net>
Date: Thu, 22 Jun 2000 20:09:12 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92483-2000.06.22-19.10.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I didn't suggest using a R/C filter.... that was someone else. Just try lowering the audio output to start.

Also, try another TNC with the radio in question. Make sure the radio is not the issue. Also, will give you something to compare how the tones sound. "Loud" usually means clipping and you want to avoid that.

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

31. [picsig] Re: aprs decoding

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Fri, 23 Jun 2000 01:10:26 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92484-2000.06.22-19.14.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> I didn't suggest using a R/C filter.... that was someone else. Just try
> lowering the audio output to start.
I did that. I tx with almost no sound.
The server decoded me, but the D7 didnt.

> Also, try another TNC with the radio in question. Make sure the radio is
> not the issue. Also, will give you something to compare how the tones
> sound. "Loud" usually means clipping and you want to avoid that.
I think i must scope them too...just to compare.

Thanks.

António Sérgio Sena
hamradio: CT2GPW "They say a city in the desert lies
asena@bigfoot.com The vanity of an ancient king
Tel:351967033209 With every prison blown to dust
Electronics and My enemies walk free
Robotics Graduated Though all my kingdoms turn to sand
Student from Anfei And fall into the sea
- Siemens I am mad about you"

Homepage: www.qsl.net/ct2gpw
planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] 20$ GPS: Error Ellipse

From: Neil Thomas <meltek_n@global.co.za>
Date: Sun, 25 Jun 2000 10:57:05 +0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92824-2000.06.25-04.06.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks for a great SIG.

We are playing around with the 20$ GPS engines and find that the
elevation data seems to be inconsistent.   Can anyone explain the
meaning of the error ellipse or point me in the right direction
explaining the ins and outs of GPS?

Our local radio society have an extensive repeater network (see:
pears.8m.com) and some of us want to suggest that we use the system
(voice channels) for APRS. Perhaps replace the repeater tail with APRS
info. without causing too much QRM! Any comments/suggestions?

Neil Thomas ZR2NT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] aprs decoding new develpment

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Sun, 25 Jun 2000 12:17:58 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92832-2000.06.25-06.22.14--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

hello people!

I had a chance to test a D7 here, and noticed something interesting.
I linked the D7 to my pc in his tnc mode. I saw all the traffic listened on the air. Even my
beacon, that before it didnt decoded. Now i was seeing everyone local in my winaprs map.
Strange hum??
I disconnected the D7 from the pc, switch to the internal aprs mode, and the problem persists.
I cant see my pic beacons in the lcd........eheheh.........it's a kind of magic i suppose.....

Cheers !

António Sérgio Sena
hamradio: CT2GPW   "They say a city in the desert lies
asena@bigfoot.com   The vanity of an ancient king
Tel:351967033209   With every prison blown to dust
Electronics and   My enemies walk free
Robotics Graduated   Though all my kingdoms turn to sand
Student from Anfei   And fall into the sea
 - Siemens   I am mad about you"

Homepage: www.qsl.net/ct2gpw
                planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] Re: 20$ GPS: Error Ellipse

From: "Norman C. Brock" <nbrock@directcon.net>
Date: Sun, 25 Jun 2000 09:41:50 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-92851-2000.06.25-11.44.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Neil Thomas wrote:
>
> Thanks for a great SIG.
>
> We are playing around with the 20$ GPS engines and find that the
> elevation data seems to be inconsistent.   Can anyone explain the
> meaning of the error ellipse or point me in the right direction
> explaining the ins and outs of GPS?
>
> Our local radio society have an extensive repeater network (see:

> pears.8m.com) and some of us want to suggest that we use the system
> (voice channels) for APRS. Perhaps replace the repeater tail with APRS
> info. without causing too much QRM! Any comments/suggestions?
>
> Neil Thomas ZR2NT
>
> ---
> You are currently subscribed to picsig as: nbrock@jpaerospace.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
Neil, take a look at the Trimble web site. They have some pretty good
info.
Norm Brock

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

35. [picsig] PIC-E Passing MIC Audio

From: "James A. Martin Jr." <tapr@jmartin.net>
Date: Tue, 27 Jun 2000 11:23:31 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "James A. Martin Jr." <james@jmartin.net>
Message-ID: <LYR6890-93376-2000.06.27-11.27.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Sig,

Can someone help me with a circuit that will mute the MIC audio when the
PIC-E transmits its packets? This PIC-E will be in an extremely noisy
environment and will be connected to a radio that is being used for voice
comms as well. When the noise goes up, the packets are not decoded!

Has anyone done this already?

Did the MIC-E do this? If so, how?

Thanks in advance,

James M.
KD5HAD

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

36. [picsig] Pic-E programming

From: Doug McFadden <kc7imr@orednet.org>
Date: Tue, 27 Jun 2000 12:55:36 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93412-2000.06.27-15.03.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ok what's the secret?

I finally sat down and assembled my Pic-E kit. I'm impressed, it is a
well made kit.

The problem is getting the chip programmed. It keeps comming up
"Programmer initialization failed". So I tried several serial cables. jp4
is off, no luck. The power on voltage checks were ok, so I decided to
check voltages in "program mode" i.e. no power applied, jp-4 off,
connected to the serial port, etc. What I found was 7.8 volts between vdd
(14) and vss (5) on the pic chip U1. So I'm sure the chip said "audioss"
with this condition. Now I'm looking at the schematic, wondering why
there is a 100k resister between vdd(14) and mclr(4) which is tied through
a 22k resister to pin 3 of P2? I lifted one end of R1, the 100k resister
and found 4.8 volts between vdd(14) and vss (5) on the pic chip U1 now, so
R5, D2, D1 & C1 are working. I suspect the 9 volts on mclr(4) is not
going to be high enough to allow the chip to be to be programmed?

So how is anyone getting these things programmed? Is the serial port on
my computer hosed?

Where can I find a schematic for a real programmer?

Thanks, in the meantime, I'll order some new chips from tapr.

73 de Doug

KC7IMR

Trying to establish voice contact ... please yell into your keyboard.
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

37. [picsig] Re: Pic-E programming

From: "James Gutshall" <jeg@cc.usu.edu>
Date: Tue, 27 Jun 2000 16:50:07 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93448-2000.06.27-17.33.01--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

oct 1997 QST...

----- Original Message -----
From: Doug McFadden <kc7imr@orednet.org>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Tuesday, June 27, 2000 1:55 PM
Subject: [picsig] Pic-E programming

> Ok what's the secret?
>
> I finally sat down and assembled my Pic-E kit. I'm impressed, it is a
> well made kit.
>
> The problem is getting the chip programmed. It keeps comming up
> "Programmer initialization failed". So I tried several serial cables. jp4
> is off, no luck. The power on voltage checks were ok, so I decided to
> check voltages in "program mode" i.e. no power applied, jp-4 off,
> connected to the serial port, etc. What I found was 7.8 volts between vdd
> (14) and vss (5) on the pic chip U1. So I'm sure the chip said "audioss"
> with this condition. Now I'm looking at the schematic, wondering why
> there is a 100k resister between vdd(14) and mclr(4) which is tied through
> a 22k resister to pin 3 of P2? I lifted one end of R1, the 100k resister
> and found 4.8 volts between vdd(14) and vss (5) on the pic chip U1 now, so
> R5, D2, D1 & C1 are working. I suspect the 9 volts on mclr(4) is not
> going to be high enough to allow the chip to be to be programmed?
>
> So how is anyone getting these things programmed? Is the serial port on
> my computer hosed?
>
> Where can I find a schematic for a real programmer?
>
> Thanks, in the meantime, I'll order some new chips from tapr.
>
> 73 de Doug
> KC7IMR
>
>
> Trying to establish voice contact ... please yell into your keyboard.
> -=-
> kc7imr@orednet.org   Linux, for the GNU generation!
>
>
> ---
> You are currently subscribed to picsig as: jeg@cc.usu.edu
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

38. [picsig] aprs decoding, new developments

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Tue, 27 Jun 2000 23:47:08 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93452-2000.06.27-17.51.06--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

hello people!

I had a chance to test a D7 here, and noticed something interesting.
I linked the D7 to my pc in his tnc mode. I saw all the traffic listened
on the air. Even my
beacon, that before it didnt decoded. Now i was seeing everyone local in
my winaprs map.
Strange hum??
I disconnected the D7 from the pc, switch to the internal aprs mode, and
the problem persists.
I cant see my pic beacons in the lcd........eheheh.........it's a kind of
magic i suppose.....

Cheers !

António Sérgio Sena
hamradio: CT2GPW
asena@bigfoot.com
Tel:351967033209
Electronics and
Robotics Graduated
Student from Anfei
 - Siemens

"They say a city in the desert lies
The vanity of an ancient king
With every prison blown to dust
My enemies walk free
Though all my kingdoms turn to sand
And fall into the sea
I am mad about you"

Homepage: www.qsl.net/ct2gpw -> english vailable
planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

39. [picsig] Re: PIC-E Passing MIC Audio

From: Derek Lassen <kn6td@clubnet.net>
Date: Tue, 27 Jun 2000 16:01:17 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93455-2000.06.27-18.06.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I should think a 4k or so resistor tied from PTT to the high end of the
mic element should do the trick.

At 11:23 AM 6/27/00 -0500, you wrote:
>Sig,
>
>Can someone help me with a circuit that will mute the MIC audio when the
>PIC-E transmits its packets? This PIC-E will be in an extremely noisy
>environment and will be connected to a radio that is being used for voice
>comms as well. When the noise goes up, the packets are not decoded!
>
>Has anyone done this already?
>
>Did the MIC-E do this? If so, how?
>
>Thanks in advance,
>
>James M.
>KD5HAD
>
>
>---
>You are currently subscribed to picsig as: kn6td@clubnet.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] Re: Pic-E programming

From: John Hansen <john@hansen.net>
Date: Tue, 27 Jun 2000 19:49:57 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-93459-2000.06.27-18.52.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 04:50 PM 6/27/00 -0600, you wrote:
>oct 1997 QST...

Thanks for the plug! But I think it was Oct. 1998.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] Re: Pic-E programming

From: "Rik Stallings" <rik@lcsd.logan.k12.ut.us>
Date: Wed, 28 Jun 2000 10:39:26 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93629-2000.06.28-11.42.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I had the same problem when I tried to program mine from my laptop. When I
went to the desktop it worked. I guess some serial ports just don't put out
enough juice to do the trick. Try a serial port on a different computer.

~~~~~~
Rik Stallings
Network Systems Administrator
Logan City School District

KD7GNX
E-mail: rik@lcsd.logan.k12.ut.us
Web: http://www.lcsd.logan.k12.ut.us/~rik

"What good is science if nobody gets hurt?" - Chrome Dome
~~~~~~
----- Original Message -----
From: Doug McFadden <kc7imr@orednet.org>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Tuesday, June 27, 2000 1:55 PM
Subject: [picsig] Pic-E programming

> Ok what's the secret?
>
> I finally sat down and assembled my Pic-E kit. I'm impressed, it is a
> well made kit.
>
> The problem is getting the chip programmed. It keeps comming up
> "Programmer initialization failed". So I tried several serial cables. jp4
> is off, no luck. The power on voltage checks were ok, so I decided to
> check voltages in "program mode" i.e. no power applied, jp-4 off,
> connected to the serial port, etc. What I found was 7.8 volts between vdd
> (14) and vss (5) on the pic chip U1. So I'm sure the chip said "audioss"
> with this condition. Now I'm looking at the schematic, wondering why
> there is a 100k resister between vdd(14) and mclr(4) which is tied through
> a 22k resister to pin 3 of P2? I lifted one end of R1, the 100k resister
> and found 4.8 volts between vdd(14) and vss (5) on the pic chip U1 now, so
> R5, D2, D1 & C1 are working. I suspect the 9 volts on mclr(4) is not
> going to be high enough to allow the chip to be to be programmed?
>
> So how is anyone getting these things programmed? Is the serial port on
> my computer hosed?
>
> Where can I find a schematic for a real programmer?
>
> Thanks, in the meantime, I'll order some new chips from tapr.
>
> 73 de Doug
> KC7IMR
>
>
> Trying to establish voice contact ... please yell into your keyboard.
> -=-
> kc7imr@orednet.org   Linux, for the GNU generation!
>
>

> ---
> You are currently subscribed to picsig as: rik@lcsd.logan.k12.ut.us
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

42. [picsig] MIC-E Protocol/AEA TNC Interaction

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 28 Jun 2000 14:07:43 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR6890-93682-2000.06.28-16.11.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Anyone using or supporting the use of AEA TNC's please read this.
This describes a problem due to the compression technique used with
MIC-E packets, requiring a few non-printable characters to be passed
cleanly between TNC and computer:

I'm running experiments with a TinyTrak (it sends MIC-E protocol)
and another setup with an AEA PK-88 TNC and APRS+SA or Xastir.

I found that the default "initaea.tnc" file for APRS+SA (likely
other APRS software also?) causes the TNC to filter out the
unprintable characters in the MIC-E protocol. I ran into the same
problem recently trying to figure out AEA settings for Xastir.

The AEA default "mfilter" and "afilter" commands (thanks for that
last one Bob) filter out most control characters before they reach
the computer. The TNC sees a correct packet, but sends a
corrupted packet up to the computer, which can then get
retransmitted.

This is the fix I've been using for Xastir on Linux. It filters
out only the 0x00 bytes, which is ok in this instance:

        mfilter 0

Another command that "may" be useful is:

        afilter 0

I don't use the "afilter" command 'cuz it filters control characters
only during connected mode. I don't use that mode with APRS.

Would the software authors and anyone else using AEA TNC's please
check your configuration files and modify as necessary? Please tell
the rest of us if there are other settings that are needed. I'm no
expert at TNC settings.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

43. [picsig] AVRs and APRS

From: Henry Carl Ott <carlott@interport.net>
Date: Thu, 29 Jun 2000 15:15:52 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93914-2000.06.29-14.20.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Folks,
  I realize this is the PIC list, but...
  If anyone is interested in doing packet with an Atmel AVR I finally got
around to documenting my experiments with a AT90s2313 and a MX-614.
  A schematic and some source code can be found on my projects page:
http://www.users.interport.net/~carlott/projects.html

Just hit the AVR link.

  I've received a lot of useful information from the TAPR sigs and the
PIC-E project. I've just not been posting very much lately.
Comments are welcome.

carl

Henry Carl Ott   N2RVQ   carlott@interport.net
http://www.interport.net/~carlott/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

44. [picsig] RE: AVRs and APRS

From: "Steven R. Bible" <steveb@dandin.com>
Date: Thu, 29 Jun 2000 17:38:43 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-93950-2000.06.29-16.42.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Hi Folks,
>   I realize this is the PIC list, but...

Everyone,

Just so there's no confusion, this is _not_ a PIC only list. It is a
microcontroller list.

Don't hold back. Experiment away!

 - Steve, N7HPR
   n7hpr@tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

45. [picsig] Re: MIC-E Protocol/AEA TNC Interaction

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 30 Jun 2000 13:40:58 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Curt Mills, WE7U" <BowHunter@mail.com>, Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR6890-94190-2000.06.30-15.45.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Jun 2000, Curt Mills, WE7U wrote:

> This is the fix I've been using for Xastir on Linux. It filters
> out only the 0x00 bytes, which is ok in this instance:
>
>   mfilter 0
>
> Another command that "may" be useful is:
>
>   afilter 0
>
> I don't use the "afilter" command 'cuz it filters control characters
> only during connected mode. I don't use that mode with APRS.

I read through the manual last night and I was a bit wrong about
"afilter". It filters outgoing data based on the mfilter list in
ANY mode, not just connected mode.

If you set "mfilter 0" and "afilter on", then afilter will filter
0x00 from outgoing packets. The default for afilter is "off" on
my AEA PK-88's. It can only be set to "on" or "off".

Main point here: Change "mfilter" from the default for an AEA
TNC else you'll be corrupting MIC-E packets. You can leave "afilter"
alone though.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

July 2000

Original source file: picsig.0007
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0007

1. [picsig] New GPS-E-2 and GPS-E-2-SV6

From: John Hansen <john@hansen.net>
Date: Sun, 02 Jul 2000 11:24:43 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-94453-2000.07.02-10.27.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Based on a couple of bug reports I uploaded new versions of my GPS-E-2
programs. For consistency, both programs are now referred to as Rev
G. The errors fixed are the following:

For GPS-E-2:

        The GUI program that did the configuration did not work properly when
specifying configuration 2, if configuration2 had a path in it.

For GPS-E-2-SV6:

        Fixed the above error and also fixed the problem that occurred when
latitude was less than 10 degrees.

I've uploaded the new versions and they should be in the download area shortly.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] RE: AVRs and APRS

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Mon, 3 Jul 2000 16:26:25 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "'carlott@interport.net'" <carlott@interport.net>
Message-ID: <LYR6890-94606-2000.07.03-15.25.37--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Carl

Looking over the code... and schematics... it would appear to me that I
wouldn't
need the PCF8583 clock/RAM if I used the AT90x8535 part...

I know it's LOTS bigger (form factor) but with lots more memory and a real
time
clock on board the chip... seems I2C stuff is then unnecessary...

Besides... I have a development board with the 8535 on it (the
www.baritek.com
development board... and at $90 list...all I need is the MX-614 with
the associated components - a couple of connectors... and the PTT logic...

Hack your code and voila ?!?!?!

Your thoughts?

ALOHA
AH6LS

> -----Original Message-----
> From: Henry Carl Ott [SMTP:carlott@interport.net]
> Sent: Thursday, June 29, 2000 3:16 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] AVRs and APRS
>
> Hi Folks,
>   I realize this is the PIC list, but...
>   If anyone is interested in doing packet with an Atmel AVR I finally got
>
> around to documenting my experiments with a AT90s2313 and a MX-614.
>   A schematic and some source code can be found on my projects page:
> http://www.users.interport.net/~carlott/projects.html

> Just hit the AVR link.
>
> I've received a lot of useful information from the TAPR sigs and the
> PIC-E project. I've just not been posting very much lately.
> Comments are welcome.
>
>
>
>
>
>
> carl
>
> ---
> Henry Carl Ott N2RVQ carlott@interport.net
> http://www.interport.net/~carlott/
> ---
>
>
> ---
> You are currently subscribed to picsig as: asadowski@ncshp.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Velleman HPS5

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Sat, 8 Jul 2000 01:18:40 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95367-2000.07.08-00.22.43--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I was looking through the recent issue of Nuts and Volts and came
across for a small LCD Oscilloscope made by a company called Velleman.
I checked it out on the web <http://www.velleman-kit.com> and the item
looks interesting. It is a relatively new product apparently
superceding an earlier design the HHS5 which was available both wired
or in kit form. Anyone know anything about this unit?

--
Brian B. Riley --> http://members.macconnect.com/~brianbr
   <mailto:brianbr@wulfden.org>
   <mailto:n1bq@amsat.org>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: Velleman HPS5

From: Jeff King <jeff@aerodata.net>
Date: Sat, 08 Jul 2000 01:41:54 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95369-2000.07.08-00.43.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I think I have the earlier version of this.... same company but it plugged into
a laptop.... it was a kit, and a vacation project for me but the vacation
ran out just before I finished it. I think I'm about 2 hours from completing
it.

But all in all it seemed very well built and went together fairly easily. Velleman
is out of Beliguim I belive and quite popular.

-Jeff

"Brian B. Riley" wrote:

> I was looking through the recent issue of Nuts and Volts and came
> across for a small LCD Oscilloscope made by a company called Velleman.
> I checked it out on the web <http://www.velleman-kit.com> and the item
> looks interesting. It is a relatively new product apparently
> superceding an earlier design the HHS5 which was available both wired
> or in kit form. Anyone know anything about this unit?

>
> --
> Brian B. Riley --> http://members.macconnect.com/~brianbr
>   <mailto:brianbr@wulfden.org>
>   <mailto:n1bq@amsat.org>
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Re: New GPS-E-2 and GPS-E-2-SV6

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Mon, 10 Jul 2000 19:44:49 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95743-2000.07.10-19.51.05--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

What has happened to the PIC SIG ftp area on TAPR? I tried to get the
latest stuff that John Hansen had written about and got an error that
the link didn't exist. Server must be having a bad day...

John, does the SV6 software include both the NMEA and TAIP protocols? I
got a couple of CM3 kits from Communications Surplus out of Houston, and
am interested in converting the TAIP RPV & RTM response to an NMEA RMC
sentence for use with APRS.

BTW, I'll ask a dumb question, a bit off-topic, before I do any serious
research. The SV6 CM3 board seems to have a date problem in the RTM
sentence (TAIP). Is this related to the 1023 week (or is that a 1024
week?) rollover that occurred last August? Is there a fairly easy way
of correcting for this, assuming one knows approximately what year they
are in? Like, maybe adding in some modulo value to the reported date?
Just guessing here. There has to be some way of getting this
corrected. Maybe not...

Thanks.

73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: New GPS-E-2 and GPS-E-2-SV6

From: John Hansen <john@hansen.net>
Date: Mon, 10 Jul 2000 20:55:19 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95745-2000.07.10-19.58.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 07:44 PM 7/10/00 -0500, you wrote:
>What has happened to the PIC SIG ftp area on TAPR? I tried to get the
>latest stuff that John Hansen had written about and got an error that
>the link didn't exist. Server must be having a bad day...

I'm not sure what the problem with the server is. I can't get in via the
web page, but I can get in using ftp.

>John, does the SV6 software include both the NMEA and TAIP protocols? I
>got a couple of CM3 kits from Communications Surplus out of Houston, and
>am interested in converting the TAIP RPV & RTM response to an NMEA RMC
>sentence for use with APRS.

NEMA only. It was a fairly quick hack.

John W2FS

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Re: New GPS-E-2 and GPS-E-2-SV6

From: "Steven R. Bible" <n7hpr@tapr.org>
Date: Mon, 10 Jul 2000 22:08:29 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95757-2000.07.10-21.13.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >What has happened to the PIC SIG ftp area on TAPR? I tried to get the
> >latest stuff that John Hansen had written about and got an error that
> >the link didn't exist. Server must be having a bad day...
>
> I'm not sure what the problem with the server is. I can't get in via the
> web page, but I can get in using ftp.

I'm looking into it. I've notice too.

 - Steve, N7HPR
   n7hpr@tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Re: New GPS-E-2 and GPS-E-2-SV6

From: Doug Bade <doug@ohioaprs.net>
Date: Mon, 10 Jul 2000 23:34:32 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95764-2000.07.10-22.38.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

there is information on the trimble ftp site for flash upgrading your cm3's
to nmea.. no RMC sentence, which is why the sv6 version was modified to do
GGA.. let me know if you need more info.. I have flashed a bunch.. doug
kb8gvq...

At 07:44 PM 7/10/00 -0500, you wrote:
>What has happened to the PIC SIG ftp area on TAPR? I tried to get the
>latest stuff that John Hansen had written about and got an error that
>the link didn't exist. Server must be having a bad day...
>
>John, does the SV6 software include both the NMEA and TAIP protocols? I
>got a couple of CM3 kits from Communications Surplus out of Houston, and
>am interested in converting the TAIP RPV & RTM response to an NMEA RMC
>sentence for use with APRS.
>
>BTW, I'll ask a dumb question, a bit off-topic, before I do any serious
>research. The SV6 CM3 board seems to have a date problem in the RTM
>sentence (TAIP). Is this related to the 1023 week (or is that a 1024
>week?) rollover that occurred last August? Is there a fairly easy way
>of correcting for this, assuming one knows approximately what year they
>are in? Like, maybe adding in some modulo value to the reported date?
>Just guessing here. There has to be some way of getting this
>corrected. Maybe not...
>
>Thanks.
>
>73 - Dale. KG5LT
>
>---
>You are currently subscribed to picsig as: doug@clecom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Re: New GPS-E-2 and GPS-E-2-SV6

From: "Steven R. Bible" <srbible@gate.net>
Date: Tue, 11 Jul 2000 12:29:22 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95865-2000.07.11-11.33.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale and John,

Give FTP a try now (from a browser and ftp client). Let me know the
results.

- Steve

> -----Original Message-----
> From: bounce-picsig-6889@lists.tapr.org
> [mailto:bounce-picsig-6889@lists.tapr.org]On Behalf Of Dale Seaburg
> Sent: Monday, July 10, 2000 8:45 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Re: New GPS-E-2 and GPS-E-2-SV6
>
>
> What has happened to the PIC SIG ftp area on TAPR? I tried to get the
> latest stuff that John Hansen had written about and got an error that
> the link didn't exist. Server must be having a bad day...
>
> John, does the SV6 software include both the NMEA and TAIP protocols? I
> got a couple of CM3 kits from Communications Surplus out of Houston, and
> am interested in converting the TAIP RPV & RTM response to an NMEA RMC
> sentence for use with APRS.
>
> BTW, I'll ask a dumb question, a bit off-topic, before I do any serious
> research. The SV6 CM3 board seems to have a date problem in the RTM
> sentence (TAIP). Is this related to the 1023 week (or is that a 1024
> week?) rollover that occurred last August? Is there a fairly easy way
> of correcting for this, assuming one knows approximately what year they
> are in? Like, maybe adding in some modulo value to the reported date?
> Just guessing here. There has to be some way of getting this
> corrected. Maybe not...
>
> Thanks.
>
> 73 - Dale. KG5LT
>
> ---
> You are currently subscribed to picsig as: srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Re: New GPS-E-2 and GPS-E-2-SV6

From: John Hansen <john@hansen.net>
Date: Tue, 11 Jul 2000 13:10:18 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-95876-2000.07.11-12.13.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 12:29 PM 7/11/00 -0400, you wrote:
>Dale and John,
>
>Give FTP a try now (from a browser and ftp client). Let me know the
>results.
>
>- Steve

Both are working fine now. Good Work!

John

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] ARRL and TAPR 19th Annual Digital Communications Conference

From: "Steven R. Bible" <n7hpr@tapr.org>
Date: Tue, 18 Jul 2000 19:19:48 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-97251-2000.07.18-18.24.44--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

ARRL and TAPR 19th Annual
Digital Communications Conference
September 22-24, 2000 - Orlando, Florida

For more information see: http://www.tapr.org/dcc

Information
Mark your calendar and start making plans to attend the year's premier event in digital communications. The 19th Annual ARRL and TAPR Digital Communications Conference will be held September 22-24, 2000, in Orlando, Florida - just minutes from the Orlando International Airport.

The ARRL and TAPR Digital Communications Conference is an international forum for radio amateurs in digital communications, networking, and related technologies to meet, publish their work, and present new ideas and techniques for discussion. Presenters and attendees will have the opportunity to exchange ideas and learn about recent hardware and software advances, theories, experimental results, and practical applications. The Digital Communications Conference is not just for the digital expert, but also for digitally oriented amateurs of all levels of experience.

A Conference for the Beginner as well
The conference is not just for the digital expert. As in years past an entire session strand with beginning, intermediate, and advanced presentations on selected topics in digital communications will be offered. Some of the topics will include: APRS, Satellite Communications, TCP/IP, Digital Radio, Spread Spectrum and other introductory topics. Come to the conference and hear these topics presented by the experts!

Area Attractions
The Orlando Florida area is famous for its attractions and vacation spots. Disney World, Universal Studios, and Sea World (just to name a few) are within 15 minutes of the hotel. Shuttle service from the hotel will be available for a small fee. Cape Canaveral and Cocoa Beach are a 30 minute drive East of the hotel.

Symposia, Seminars and Banquet
Two symposia/seminars will be held which allow those with additional time and interest to make the most of the Conference. For those who may have interest in just one symposium or seminar, registration for the conference is not required to attend these activities. This allows maximum flexibility for those who may want to participate during the Digital Communications Conference, but do not have an entire weekend to devote to the event.

The Fourth APRS National Symposium will be held on Friday and will be moderated by Steve Dimse, K4HG (the developer of javAPRS). It will likely include many APRS software authors, such as Bob Bruninga, WB4APR (the father ofAPRS), Keith Sproul, WU2Z, Mark Sproul, KB2ICI (the developers of MacAPRS and WinAPRS), Brent Hildebrand, KH2Z (the developer of APRSPLUS), Mike Musick, N0QBF (developer of PocketAPRS), and other nationally known APRS leaders. Join this group for the afternoon and evening for in-depth discussions and presentations on the current and future status of APRS. This is a unique opportunity to gain insight into this fast-growing digital aspect of amateur operations that combines computers, packet radio, and GPS (Global Positioning System).

On Saturday night the DCC Banquet will be held. A guest speaker will speak after the banquet and a prize drawing will top the evening. The Grand Prize is a Palm VII Personal Digital Assistant.

The Sunday morning seminar will be focused on PIC development, design, and programming. This five-and-a-half hour seminar will focus on the things you need to know now in order to understand and begin to participate in PIC development.

Co-Hosts
The 2000 ARRL and TAPR Digital Communications Conference local co-hosts will be Lake Monroe Amateur Radio Society (http://www.qsl.net/lmars/),Orange County ARES/RACES(http://evcom.net/~jvoisin/ares.htm), Seminole County ARES/RACES (http://wwww.geocities.com/capecanaveral/launchpad/4773), and Orlando Amateur Radio Club(http://www.oarc.org/).

International Co-Hosts PRUG (Packet Radio User Group of Japan) will be the International co-host for a third year running. PRUG will be hosting an informal social Friday evening before their seminar and symposium is held. Visit http://www.prug.or.jp for more information about PRUG.

Call for Papers
Anyone interested in digital communications is invited to submit a paper for publication in the Conference Proceedings. Presentation at the Conference is not required for publication. Papers are due by August 7th, 2000, and should be submitted to

Maty Weinberg, ARRL
225 Main Street
Newington, CT 06111

or via the Internet to

lweinberg@arrl.org

Information on paper submission guidelines are available on-line at

http://www.tapr.org/dcc

Hotel
Conference presentations, meetings, and seminars will be held at the Orlando Airport Marriott. It is highly recommended that you book your room prior to arriving. A special DCC room rate of $89/single and $89/double per night has been blocked for 50 rooms and is available until September 1st, 2000. Once the 50 rooms have been reserved, room rates will increase. So be sure to book your rooms early! The hotel provides transportation to and from the Orlando International Airport. Please contact the hotel to arrange specific transportation needs.

Orlando Airport Marriott (conference hotel)
7499 Augusta Drive
Orlando, FL 32822
Phone 407-851-9000, Fax 407-857-6211
(http://marriotthotels.com/MCOAP/)

What you can expect at DCC 2000
- A full day of papers and breakouts for the beginner to the advanced
- Two seminars/symposiums
- The fifth annual Student Paper session.
- A banquet with Special Guest Speaker.
- Informal get-togethers throughout the weekend.
- TAPR Membership Meeting
- An event at which the most important new developments in amateur digital communications are announced.
- Digital 'movers and shakers' from all over the world in attendance.

There are few activities where your participation can be so much fun and important! What a great way to share and renew your enthusiasm for digital amateur radio! A get-together with colleagues and bringing each other up to date on your latest work -- all this, and more, for an unforgettable weekend of amateur radio and digital communications. We hope to see you at the ARRL and TAPR Digital Communications Conference on September 22-24, 2000!

Full information on the conference and hotel information can be obtained by contacting:

Tucson Amateur Packet Radio
Phone: (940) 383-0000.
Fax: (940) 566-2544
Email: tapr@tapr.org
Web: http://www.tapr.org

Registration Form
Contact the TAPR office by Phone 940-383-0000, Fax 940-566-2544, or Internet: http://www.tapr.org and tapr@tapr.org to register or for additional information.

Conference Registration includes: Conference Proceedings, Sessions, Meetings, and Lunch on Saturday.

- Pre-Registration (before Sept 1st)

$45.00 _____

- Registration (after Sept 1) or at door

                          $55.00 _____

- Saturday Evening Dinner (Limited Space)
Dinner with Guest Speaker
Prize Drawing

                         $30.00 _____

Symposia/Seminars

- 4th Annual APRS National Symposium
Friday, 1pm - 7pm. $25.00 _____

- Sunday Seminar
PIC Design, Development, and Programming

Sunday, 8:30 am - 2 pm. $20.00 _____

    TOTAL _____

Name/Call:

Street Address:

City/State/Zip:

Country:

Phone Number:

Email:

Charge my credit card (circle one):

VISA   MasterCard

Acct:

Expiration Date:

Signature on card:

Mail completed registration form with check to:
TAPR
8987-309 E Tanque Verde Rd #3378
Tucson, AZ 85749-9399

Or check http://www.tapr.org/dcc for an on-line registration form.

A registration packet will be mailed in September upon receipt of
registration form and payment.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] NEW SOFTWARE for $20 GPS pic NMEA converter

From: lou frankenstien <lfaustini@yahoo.com>
Date: Wed, 19 Jul 2000 19:32:41 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-97506-2000.07.19-21.38.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here it is.. the latest version of my ASIN to NMEA
converter for the $20 GPS
PLEASE DISTRIBUTE AND ENJOY!!

  I took out the ten-thousandths place on the minutes,
but the leading zero
on the longitude is needed, it is part of the spec I
think, Street-atlas
didn't work without it.. and my gamin provides it ...

so we will have to
test it. (Can you let me know if it works wit APRS?)
there was a
_very_subtle error in the way the minutes were
printed, some times it would
add a leading 0 in the middle of the string, i.e.
07656.445 would become
076056.445 (NOT quite the same !!) that was probably
the problem. Also, now
you can ground pin 3 of the PIC, and it will provide
you non-inverted serial
output, if you leave it open its serial output will be
inverted (for a max
series driver etc..) Please distribute this, I am very
happy to share it.

---Lou Faustini

  N3NRH

```
;*****************************************************************
;                      decoder for GPS
*
;                   Using PIC12c67X Microprocessor
         *
;*****************************************************************
;       Binary data is being read in, converted,
        *
;       and outputed. output is inverted, expecting a
rs-232  *
;       driver. I suggest you use the one on the asyn
board.  *
;       Port Configurations :
        *
;
        *
;       RA0 : GPS Input
        *
;       RA1 : Serial Output_to_user (Expecting a
MAX23x drvr) *
;       RA2 : Serial Output_to_gps- wire directly to
GPS-input*
;       RA3 : INPUT, ground for non-inverted
serial-output    *
;       RA4 : lock led. (pulled to gnd when locked)
        *
;       RA5 : Heartbeat led. Blinks when pic is
working       *
;
        *
;*****************************************************************
;       processor pic 12c67x
        *
;       code protection OFF
        *
;       power up timer enabled
        *
;       WDT enabled
        *
;       INTERNAL (4MHz) oscillator
        *
;*****************************************************************
```

please send any reply to me at
lfaustini@atlantech.net __not__ my temprary yahoo
account.

_____
Do You Yahoo!?
Get Yahoo! Mail Free email you can access from anywhere!

http://mail.yahoo.com/
[Attachment: Disp-4.hex; text/plain; 7,196 bytes]

13. [picsig] new version of $20 asyn gps to NMEA PIC converter software

From: "Lou" <lfaustini@atlantech.net>
Date: Wed, 19 Jul 2000 22:30:22 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-97682-2000.07.20-18.59.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here it is.. the latest version of my ASIN to NMEA converter for the $20 GPS
PLEASE DISTRIBUTE AND ENJOY!!

I took out the ten-thousandths place on the minutes, but the leading zero
on the longitude is needed, it is part of the spec I think, Street-atlas
didn't work without it.. and my gamin provides it ... so we will have to
test it. (Can you let me know if it works wit APRS?) there was a
_very_subtle error in the way the minutes were printed, some times it would
add a leading 0 in the middle of the string, i.e. 07656.445 would become
076056.445 (NOT quite the same !!) that was probably the problem. Also, now
you can ground pin 3 of the PIC, and it will provide you non-inverted serial
output, if you leave it open its serial output will be inverted (for a max
series driver etc..) Please distribute this, I am very happy to share it.

---Lou Faustini

N3NRH

```
;*****************************************************************
;                     decoder for GPS
*
;                  Using PIC12c67X Microprocessor              *
;*****************************************************************
;       Binary data is being read in, converted,               *
;       and outputed. output is inverted, expecting a rs-232   *
;       driver. I suggest you use the one on the asyn board.   *
;       Port Configurations :                                  *
;                                                              *
;       RA0 : GPS Input                                        *
;       RA1 : Serial Output_to_user (Expecting a MAX23x drvr)  *
;       RA2 : Serial Output_to_gps- wire directly to GPS-input*
;       RA3 : INPUT, ground for non-inverted serial-output     *
;       RA4 : lock led. (pulled to gnd when locked)            *
;       RA5 : Heartbeat led. Blinks when pic is working        *
;                                                              *
;*****************************************************************
;       processor pic 12c67x                                   *
;       code protection OFF                                    *
;       power up timer enabled                                 *
;       WDT enabled                                            *
;       INTERNAL (4MHz) oscillator                             *
;*****************************************************************
```

[Attachment: Disp-4.hex; application/octet-stream; 7,196 bytes]

14. [picsig] ARRL and TAPR 19th Annual Digital Communications Conference

From: "Steven R. Bible" <n7hpr@tapr.org>
Date: Tue, 25 Jul 2000 16:29:20 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-98487-2000.07.25-15.34.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

ARRL and TAPR 19th Annual
Digital Communications Conference
September 22-24, 2000 - Orlando, Florida

For more information see: http://www.tapr.org/dcc

Information
Mark your calendar and start making plans to attend the year's premier
event in digital communications. The 19th Annual ARRL and TAPR
Digital Communications Conference will be held September 22-24, 2000,
in Orlando, Florida - just minutes from the Orlando International
Airport.

The ARRL and TAPR Digital Communications Conference is an

international forum for radio amateurs in digital communications, networking, and related technologies to meet, publish their work, and present new ideas and techniques for discussion. Presenters and attendees will have the opportunity to exchange ideas and learn about recent hardware and software advances, theories, experimental results, and practical applications. The Digital Communications Conference is not just for the digital expert, but also for digitally oriented amateurs of all levels of experience.

A Conference for the Beginner as well
The conference is not just for the digital expert. As in years past an entire session strand with beginning, intermediate, and advanced presentations on selected topics in digital communications will be offered. Some of the topics will include: APRS, Satellite Communications, TCP/IP, Digital Radio, Spread Spectrum and other introductory topics. Come to the conference and hear these topics presented by the experts!

Area Attractions
The Orlando Florida area is famous for its attractions and vacation spots. Disney World, Universal Studios, and Sea World (just to name a few) are within 15 minutes of the hotel. Shuttle service from the hotel will be available for a small fee. Cape Canaveral and Cocoa Beach are a 30 minute drive East of the hotel.

Symposia, Seminars and Banquet
Two symposia/seminars will be held which allow those with additional time and interest to make the most of the Conference. For those who may have interest in just one symposium or seminar, registration for the conference is not required to attend these activities. This allows maximum flexibility for those who may want to participate during the Digital Communications Conference, but do not have an entire weekend to devote to the event.

The Fourth APRS National Symposium will be held on Friday and will be moderated by Steve Dimse, K4HG (the developer of javAPRS). It will likely include many APRS software authors, such as Bob Bruninga, WB4APR (the father ofAPRS), Keith Sproul, WU2Z, Mark Sproul, KB2ICI (the developers of MacAPRS and WinAPRS), Brent Hildebrand, KH2Z (the developer of APRSPLUS), Mike Musick, N0QBF (developer of PocketAPRS), and other nationally known APRS leaders. Join this group for the afternoon and evening for in-depth discussions and presentations on the current and future status of APRS. This is a unique opportunity to gain insight into this fast-growing digital aspect of amateur operations that combines computers, packet radio, and GPS (Global Positioning System).

On Saturday night the DCC Banquet will be held. A guest speaker will speak after the banquet and a prize drawing will top the evening. The Grand Prize is a Palm VII Personal Digital Assistant.

The Sunday morning seminar will be focused on PIC development, design, and programming. This five-and-a-half hour seminar will focus on the things you need to know now in order to understand and begin to participate in PIC development.

Co-Hosts
The 2000 ARRL and TAPR Digital Communications Conference local co-hosts will be Lake Monroe Amateur Radio Society (http://www.qsl.net/lmars/),Orange County ARES/RACES(http://evcom.net/~jvoisin/ares.htm), Seminole County ARES/RACES (http://wwww.geocities.com/capecanaveral/launchpad/4773), and Orlando Amateur Radio Club(http://www.oarc.org/).

International Co-Hosts PRUG (Packet Radio User Group of Japan) will be the International co-host for a third year running. PRUG will be hosting an informal social Friday evening before their seminar and symposium is held. Visit http://www.prug.or.jp for more information about PRUG.

Call for Papers
Anyone interested in digital communications is invited to submit a paper for publication in the Conference Proceedings. Presentation at the Conference is not required for publication. Papers are due by August 7th, 2000, and should be submitted to

Maty Weinberg, ARRL
225 Main Street
Newington, CT 06111

or via the Internet to

   lweinberg@arrl.org

Information on paper submission guidelines are available on-line at

   http://www.tapr.org/dcc

Hotel
Conference presentations, meetings, and seminars will be held at the
Orlando Airport Marriott. It is highly recommended that you book your
room prior to arriving. A special DCC room rate of $89/single and
$89/double per night has been blocked for 50 rooms and is available
until September 1st, 2000. Once the 50 rooms have been reserved, room
rates will increase. So be sure to book your rooms early! The hotel
provides transportation to and from the Orlando International Airport.
Please contact the hotel to arrange specific transportation needs.

Orlando Airport Marriott (conference hotel)
7499 Augusta Drive
Orlando, FL 32822
Phone 407-851-9000, Fax 407-857-6211
(http://marriotthotels.com/MCOAP/)

What you can expect at DCC 2000
- A full day of papers and breakouts for the beginner to the advanced
- Two seminars/symposiums
- The fifth annual Student Paper session.
- A banquet with Special Guest Speaker.
- Informal get-togethers throughout the weekend.
- TAPR Membership Meeting
- An event at which the most important new developments in amateur
  digital communications are announced.
- Digital 'movers and shakers' from all over the world in attendance.

There are few activities where your participation can be so much fun
and important! What a great way to share and renew your enthusiasm for
digital amateur radio! A get-together with colleagues and bringing
each other up to date on your latest work -- all this, and more, for
an unforgettable weekend of amateur radio and digital communications.
We hope to see you at the ARRL and TAPR Digital Communications
Conference on September 22-24, 2000!

Full information on the conference and hotel information can be
obtained by contacting:

Tucson Amateur Packet Radio
Phone: (940) 383-0000.
Fax: (940) 566-2544
Email: tapr@tapr.org
Web: http://www.tapr.org

Registration Form
Contact the TAPR office by Phone 940-383-0000, Fax 940-566-2544, or
Internet: http://www.tapr.org and tapr@tapr.org to register or for
additional information.

Conference Registration includes: Conference Proceedings, Sessions,
Meetings, and Lunch on Saturday.

Mail completed registration form with check to:
TAPR
8987-309 E Tanque Verde Rd #3378
Tucson, AZ 85749-9399

Or check http://www.tapr.org/dcc for an on-line registration form.

A registration packet will be mailed in September upon receipt of
registration form and payment.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] SVEE-6 and PIC-E problem

From: "Ken Isom" <kd5aia@arrl.net>
Date: Wed, 26 Jul 2000 13:45:23
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-98616-2000.07.26-13.50.37--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Got the SV-6 from Commsurplus working and outputting verified
GGA formatted NEMA at 4800baud. Works fine with WinAPRS and GPSVies
on laptop. The PIC-E works fine when programmed with other applications
off the TAPR software like diags/ezpicpacket/etc or but not with the
GPS-E-2-SV6G does not work.
The unit flashes the yellow LED once when powered up but nothing
does nothing after that. I am using a MAX232 chip driving into
the PIC-E GPS P1 port on pin 2 and verified data on the PIC U1
pin 17 is toggling every 2 seconds. The TTL level is normally low
going to +5v when NMEA data received.
Is this the right input pin? Is the signal inverted?
I have verified all switch settings.
I have tried to program using the PGS-E-2 programmer and also
loading the output.hex into the picprog6 programmer.
Both say they loaded ok. Is there a know checksum I could verify
with the picprog with default setting to verify programming is not
the problem?
Thanks
Ken Isom
KD5AIA@arrl.net

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Re: SVEE-6 and PIC-E problem

From: Ray Vaughan <ray@rayvaughan.com>
Date: Wed, 26 Jul 2000 15:18:03 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-98624-2000.07.26-14.23.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I don't have my notes with me, but it sounds a lot like a problem I had a few months ago.

Make sure you see time in the NEMA strings. The pic depends on the time for it's function timers.
Some of the available software won't even finish the self-test without the time coming in. I don't have
the reference handy, but does GGA include time? If not, find another string that does.

At 01:45 PM 7/26/00 +0000, you wrote:
>Got the SV-6 from Commsurplus working and outputting verified
>GGA formatted NEMA at 4800baud. Works fine with WinAPRS and GPSVies
>on laptop. The PIC-E works fine when programmed with other applications
>off the TAPR software like diags/ezpicpacket/etc or but not with the
>GPS-E-2-SV6G does not work.
>The unit flashes the yellow LED once when powered up but nothing
>does nothing after that. I am using a MAX232 chip driving into
>the PIC-E GPS P1 port on pin 2 and verified data on the PIC U1
>pin 17 is toggling every 2 seconds. The TTL level is normally low
>going to +5v when NMEA data received.
>Is this the right input pin? Is the signal inverted?
>I have verified all switch settings.
>I have tried to program using the PGS-E-2 programmer and also
>loading the output.hex into the picprog6 programmer.
>Both say they loaded ok. Is there a know checksum I could verify
>with the picprog with default setting to verify programming is not
>the problem?
>Thanks
>Ken Isom
>KD5AIA@arrl.net
>
>---
>You are currently subscribed to picsig as: ray@rayvaughan.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] Re: SVEE-6 and PIC-E problem

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 26 Jul 2000 12:45:05 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-98630-2000.07.26-14.50.23--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 26 Jul 2000, Ray Vaughan wrote:

> I don't have my notes with me, but it sounds a lot like a problem
> I had a few months ago.
>
> Make sure you see time in the NEMA strings. The pic depends on
> the time for it's function timers. Some of the available software
> won't even finish the self-test without the time coming in. I don't
> have the reference handy, but does GGA include time? If not, find
> another string that does.

Yes GPGGA has time in it. UTC time of position fix, hhmmss format.

He'd be out of luck if it didn't though, 'cuz the Trimble in NMEA
mode only puts out GPGGA and GPVTG sentences. GPVTG does NOT have
time.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] Re: SVEE-6 and PIC-E problem

From: Doug Bade <doug@clecom.com>
Date: Wed, 26 Jul 2000 13:48:38 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-98632-2000.07.26-14.52.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

the svee six version is made to run off board ttl output with no rs232
drivers. if you are using for win it implies you have max232 or such..
connect in front of max not after.. probably will work.. 73, doug

At 01:45 PM 7/26/00 +0000, you wrote:
>Got the SV-6 from Commsurplus working and outputting verified
>GGA formatted NEMA at 4800baud. Works fine with WinAPRS and GPSVies
>on laptop. The PIC-E works fine when programmed with other applications
>off the TAPR software like diags/ezpicpacket/etc or but not with the
>GPS-E-2-SV6G does not work.
>The unit flashes the yellow LED once when powered up but nothing
>does nothing after that. I am using a MAX232 chip driving into
>the PIC-E GPS P1 port on pin 2 and verified data on the PIC U1
>pin 17 is toggling every 2 seconds. The TTL level is normally low
>going to +5v when NMEA data received.
>Is this the right input pin? Is the signal inverted?
>I have verified all switch settings.
>I have tried to program using the PGS-E-2 programmer and also
>loading the output.hex into the picprog6 programmer.
>Both say they loaded ok. Is there a know checksum I could verify
>with the picprog with default setting to verify programming is not
>the problem?
>Thanks
>Ken Isom
>KD5AIA@arrl.net
>
>---
>You are currently subscribed to picsig as: doug@clecom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: SVEE-6 and PIC-E problem

From: "Ken Isom" <kd5aia@arrl.net>
Date: Fri, 28 Jul 2000 0:21:41
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-98936-2000.07.28-00.26.59--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Hey... finally working. thanks for all help.
I found out that pin 18 of the PIC chip should receive
the TTL level NEMA data from the SV-6 and NOT RS232.
I connected the signal directly, and reprogrammed
the PIC-E a few more times, and finally it's working great.
I still left the MAX232 chip connected so I can connect the SV-6
to my PC if needed.
Adding battery backup really seems to speed up the boo up of the SV-6.

Ken

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

August 2000

Original source file: picsig.0008
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0008

1. [picsig] Re: new version of $20 asyn gps to NMEA PIC converter software

From: "Lou" <lfaustini@atlantech.net>
Date: Fri, 4 Aug 2000 09:27:43 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-100547-2000.08.04-08.30.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Oh , Sorry guys, I forgot to include the pin-outs of the pic-chip

```
;*****************************************************************
;                    LCD Display decoder for GPS                 *
;                  Using PIC12c67X Microprocessor                 *
;*****************************************************************
;       Binary data is being read in, converted,                 *
;       and outputed. output is inverted, expecting a rs-232     *
;       driver. I suggest you use the one on the asyn board.     *
;       Port Configurations :                                    *
;                                                                *
;       RA0 : GPS Input                                          *
;       RA1 : Serial Output_to_user (Expecting a MAX23x drvr)    *
;       RA2 : Serial Output_to_gps- wire directly to GPS-input   *
;       RA3 : INPUT, ground for non-inverted serial-output       *
;       RA4 : lock led. (pulled to gnd when locked)              *
;       RA5 : Heartbeat led. Blinks when pic is working          *
;                                                                *
;*****************************************************************
;       processor pic 12c67x                                     *
;       code protection OFF                                      *
;       power up timer enabled                                   *
;       WDT enabled                                              *
;       INTERNAL (4MHz) oscillator                               *
;*****************************************************************
-----Original Message-----
From: Lou <lfaustini@atlantech.net>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Thursday, July 20, 2000 7:55 PM
Subject: [picsig] new version of $20 asyn gps to NMEA PIC converter software


>Here it is.. the latest version of my ASIN to NMEA converter for the $20
GPS
>PLEASE DISTRIBUTE AND ENJOY!!
>
>  I took out the ten-thousandths place on the minutes, but the leading zero

>on the longitude is needed, it is part of the spec I think, Street-atlas
>didn't work without it..  and my gamin provides it ... so we will have to
>test it. (Can you let me know if it works wit APRS?)  there was a
>_very_subtle error in the way the minutes were printed, some times it would
>add a leading 0 in the middle of the string,  i.e. 07656.445 would become
>076056.445 (NOT quite the same !!) that was probably the problem. Also, now
>you can ground pin 3 of the PIC, and it will provide you non-inverted
serial
>output, if you leave it open its serial output will be inverted (for a max
>series driver etc..) Please distribute this, I am very happy to share it.
>
>
>
>---Lou Faustini
>
>  N3NRH
>
>
>
>;*****************************************************************
>;                     decoder for GPS
>*
>;                   Using PIC12c67X Microprocessor              *
>;*****************************************************************
>;       Binary data is being read in, converted,                 *
>;       and outputed. output is inverted, expecting a rs-232     *
```

```
>;       driver. I suggest you use the one on the asyn board.  *
>;       Port Configurations :                                 *
>;                                                             *
>;       RA0 : GPS Input                                       *
>;       RA1 : Serial Output_to_user (Expecting a MAX23x drvr) *
>;       RA2 : Serial Output_to_gps- wire directly to GPS-input*
>;       RA3 : INPUT, ground for non-inverted serial-output    *
>;       RA4 : lock led. (pulled to gnd when locked)           *
>;       RA5 : Heartbeat led. Blinks when pic is working       *
>;                                                             *
>;*************************************************************
>;       processor pic 12c67x                                  *
>;       code protection OFF                                   *
>;       power up timer enabled                                *
>;       WDT enabled                                           *
>;       INTERNAL (4MHz) oscillator                            *
>;*************************************************************
>
>
>
>
>
```

[Attachment: Disp-4.hex; application/octet-stream; 7,196 bytes]

2. [picsig] PIC-E and APRS Track/Digipeat

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Mon, 7 Aug 2000 19:09:10 -0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101255-2000.08.07-14.14.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello dear PICies,

I am very new to PIC-E and APRS and have some questions:

Is it possible to use the PIC-E for APRS-Tracking and as APRS-Digi at the
same time?

How could I load programs to the PIC-E if I'm in the field without a Laptop?
Would it be possible to use
a PalmOS or WinCE device for programming ? Or ist there any other kind of
external storage for PIC programs?

What is the FRAM extension metioned in the readme.txt for the
Digi-application?

Many thanks in advance for your help and best 73 de DK3DUA
Thomas

email: dk3dua@dk3dua.de

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Pic-E problem

From: "Doug Obenchain" <dobencha@netusa1.net>
Date: Thu, 3 Aug 2000 22:05:30 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101336-2000.08.07-19.13.44--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have a problem with my Pic-E which is as follows.

I am able to load a program (diagnostics) but when I follow the
instructions for running the diags I do not get any lights to light up. I
have chescked my construction and can find nothing amiss. Any help would be
appreciated.

73
Doug Obenchain, KB9RYO

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: Pic-E problem

From: "Ken Isom" <kd5aia@arrl.net>
Date: Mon, 7 Aug 2000 21:22:24
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101366-2000.08.07-21.28.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Doug,
The majority of my problems were getting the PIC-E to program
properly.. I had to use 2 different PC's and ports before I finally got it
to work.
I would suggest you try loading different programs like
the picdiag, picdiag2, and even the pixie beacon since that operate
differently and have different indicators.
Also try clearing out the PIC, program it and then check for blank.
that will give you a checksum number you can use to tell if anything
is happening.
If all else fails, I would take one of the programs and simply modify
it to immediately call and light up certain LEDS immediately on
power up.... its easy to cut and paste around some of the existing code
to do this.
I finally have my PIC-E working with the SV-6 GPS unit and really like it.
good luck
Ken

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] PIC-E and digi...

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Tue, 8 Aug 2000 18:28:04 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101520-2000.08.08-18.33.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The digipeater code I wrote for the PIC-E doesn't leave a lot
of room for anything else, so in their present form(s), they'd
have to be loaded and run one at a time.
The FRAM is a fast, non-volatile memory that is a add on modification
to the PIC-E platform. With it's 2k of additional memory, I was able
to decode, store and retransmit entire packets up to 255 bytes long.
Without it, we're limited to slightly over 50 bytes due to memory
limitations
within the 16F84.
Because many compressed tracking packets are shorter than that,
I wrote reg_digi.asm to run with a stock PIC-E (i.e. no modifications),
however
packets longer than 50 bytes will be trunicated.
For most applications, the FRAM mod is recommended.
If you can build the kit, chances are you can handle the mod.
Layout is pretty much up to the builder, however I strongly recommend
a small daugherboard with a removable connector. This allows you
to disconnect the FRAM from the circuit and install any of the original
software in the PIC-E.
Modified PIC-E's use the digi_7.asm software, which includes
support for the FRAM memory.
Hope this helps...
Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] RE: PIC-E and digi...

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Wed, 9 Aug 2000 06:58:44 -0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101605-2000.08.09-02.04.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mike,

many thanks for your email, now I know a little bit more.

> The digipeater code I wrote for the PIC-E doesn't leave a lot
> of room for anything else, so in their present form(s), they'd
> have to be loaded and run one at a time.

Does this mean that it would be possible to extend the code so that the
PIC-E can do
tracking and digipeating at the same time?

> Layout is pretty much up to the builder, however I strongly recommend
> a small daugherboard with a removable connector. This allows you
> to disconnect the FRAM from the circuit and install any of the original
> software in the PIC-E.

Does this mean that with a FRAM connected to the board, no one of the
original
software will run?

Additionally, do you think it is possible to produce an extension bord with
a
big serial EEPROM and some kind of 'bootloader software' for the PIC-E who
is able to load
programms from this EEPROM and burn them into the FLASH? Maybe it is
difficult to find a way
to choose which program to load.All such programs have to be linked for an
address behind this
boorloader, but this is not a problem I think.

Best 73 de DK3DUA
Thomas

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Chiips 68Hc705c8cs

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Wed, 9 Aug 2000 16:53:51 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101766-2000.08.09-15.59.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I found a bunch of EEpromable microprocessors labeled

 68HC705c8cs

Anyone have a use for them?

Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Re: Chiips 68Hc705c8cs

From: bj382@scn.org (Hank Riley)
Date: Wed, 9 Aug 2000 14:37:14 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: bruninga@nadn.navy.mil
Message-ID: <LYR6890-101773-2000.08.09-16.41.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>I found a bunch of EEpromable microprocessors labeled
>
> 68HC705c8cs
>
>Anyone have a use for them?
>

>Bob

Bob,

I'd be interested in one to try out if you have a good bunch of 'em.
I think there are programmer circuits for this one out on the net.

Hank

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] RE: PIC-E and digi...

From: Steve Bragg <steveb@c2-tech.com>
Date: Thu, 10 Aug 2000 15:04:01 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101980-2000.08.10-15.07.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thomas Rudolph wrote:

> Additionally, do you think it is possible to produce an extension bord with
> a
> big serial EEPROM and some kind of 'bootloader software' for the PIC-E who
> is able to load
> programms from this EEPROM and burn them into the FLASH? Maybe it is
> difficult to find a way
> to choose which program to load.All such programs have to be linked for an
> address behind this
> boorloader, but this is not a problem I think.

You need more horsepower than a PIC-E has for that. How about a HamHUD?

73,

Steve
```
--- __ __ ___   _____ __  ____    _____
   / //_//   | / __ \/  |/  / |  / /   |
  / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |\__, / /  / / | |/ / ___ |
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
=====================================================
```
Steve Bragg KA9MVA   ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FIND ME WITH APRS! http://map.findu.com/ka9mva-9

"#define QUESTION ((2b) || !(2b))"
    - Shakespeare

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] RE: PIC-E and digi...

From: Henry Carl Ott <carlott@rcn.com>
Date: Thu, 10 Aug 2000 16:26:29 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-101994-2000.08.10-15.33.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 03:04 PM 8/10/2000, you wrote:
>Thomas Rudolph wrote:
>
> > Additionally, do you think it is possible to produce an extension bord with
> > a
> > big serial EEPROM and some kind of 'bootloader software' for the PIC-E who
> > is able to load
> > programms from this EEPROM and burn them into the FLASH? Maybe it is
> > difficult to find a way
> > to choose which program to load.All such programs have to be linked for an
> > address behind this
> > boorloader, but this is not a problem I think.
>
>You need more horsepower than a PIC-E has for that. How about a HamHUD?

But then you need a full TNC. I think he is trying to avoid that.
But you are right, the PIC-E really does not have to horsepower to easily
do digipeating and tracking.

You could fit a simple digipeater and tracker into the codespace on my
AVR-UI project. Again RAM is a problem, you would still truncate packets
over ~256 bytes, and lose back to back packets. You need a design with lots
of ram for buffering.

I think you really want a design with a higher end pic/avr, a mx-614 (or
equivalent) and about 4 to 8k of ram. Hmmm, by the time your done you've
pretty much designed your own tnc.

Just my ramblings....

carl

Henry Carl Ott N2RVQ carlott@rcn.com
http://users.rcn.com/carlott/

You're entitled to your own opinions.
You are not entitled to your own facts.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] RE: PIC-E and digi...

From: "Robert Donnell" <kd7nm@pugetsound.net>
Date: Thu, 10 Aug 2000 14:38:55 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-102005-2000.08.10-16.43.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Connected-mode frames are not allowed to exceed 256 data bytes by
definition, and for the most part, only the TCP/IPers use frames larger that
that (as UI frames) anyway. Frames for APRS are usually well less than 128
bytes, including headers - not sure if that's by convention or
specification, since I've not looked at the specs.

>You could fit a simple digipeater and tracker into the codespace on my
>AVR-UI project. Again RAM is a problem, you would still truncate packets
>over ~256 bytes, and lose back to back packets. You need a design with lots
>of ram for buffering.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Win 2k and PicProg problem

From: "Shane Justice" <sjustice7@home.com>
Date: Fri, 11 Aug 2000 4:16:3
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-102086-2000.08.11-04.22.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Guys,
I just put a Pic-E together and tried to program it, but Win2k says PicProg
has performed an ilegal page fault and will be shut down.

I looked through the SIG here and didn't see anyone else talking about such
things, so I am wondering if I am doing something stupid.

Any help to point me in the right direction will be greatly appreciated.

73,
Shane
KE7TR

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Win 2k and PicProg problem

From: "Andy Russell" <andyruss@hulleng.karoo.co.uk>
Date: Sat, 12 Aug 2000 09:58:41 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-102278-2000.08.12-04.06.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes, I recognise the same problem...

It says somewhere in the docs that Windows NT is not supported - Win 2K
is after all NT5 in a new wrapper...

The programs work fine on my laptop which runs Windows 98.

73,
Andy
G0VRM

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: Win 2k and PicProg problem

From: John Hansen <john@hansen.net>
Date: Sun, 13 Aug 2000 10:06:08 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-102442-2000.08.13-10.09.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

While it has not been tested under Win2000, PIXIE is designed to work with
Win NT by using Windows API calls rather than writing directly to the
hardware. You might try it and see if it works for you. It's available in
the PICSIG software site. BTW, if it does work, drop me a note and let me
know. Thanks,

John W2FS

At 04:16 AM 8/11/00 +0000, you wrote:
>Guys,
>I just put a Pic-E together and tried to program it, but Win2k says PicProg
>has performed an ilegal page fault and will be shut down.
>
>I looked through the SIG here and didn't see anyone else talking about such
>things, so I am wondering if I am doing something stupid.
>
>Any help to point me in the right direction will be greatly appreciated.
>
>73,
>Shane
>KE7TR
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Re: Chiips 68Hc705c8cs

From: "Lou" <lfaustini@atlantech.net>
Date: Sun, 13 Aug 2000 12:16:57 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-102452-2000.08.13-11.23.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I would love to try some, if you dont mind..

   ---Lou

-----Original Message-----

From: Bob Bruninga <bruninga@nadn.navy.mil>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Wednesday, August 09, 2000 4:54 PM
Subject: [picsig] Chiips 68Hc705c8cs

>I found a bunch of EEpromable microprocessors labeled
>
> 68HC705c8cs
>
>Anyone have a use for them?
>
>Bob
>
>
>
>---
>You are currently subscribed to picsig as: lfaustini@atlantech.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] PIC project? Was AUTOMATIC POWER OFF - D700

From: "Thomas M. Schaefer" <toms@inconnect.com>
Date: Wed, 16 Aug 2000 11:26:50 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103067-2000.08.16-12.38.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

If someone adept at Pic programming wants to. it is possible to have a PIC
with an input for the ignition and once the ignition is turned off, it sends
a message to the D700 over the serial port to select a different PM memory.
This PM could have a greater interval between transmissions. Also, when the
ignition was on, it could then select another one for the "normal" mode.

One other idea is to start a timer after the car is off and after some
interval, turn the radio off completely.

Tom NY4I
----- Original Message -----
From: "Bathgate, Ed" <Ed.Bathgate@marconi.com>
To: "TAPR Hot Technology APRS" <htaprs@lists.tapr.org>
Sent: Wednesday, August 16, 2000 7:41 AM
Subject: [htaprs] Punishing a dead horse... AUTOMATIC POWER OFF - D700

>
> I set my APO on, and the radio ran overnight without turning its
> self off. "Control, we have a bug."
>
> Evidently Ron and Rob are not the only ones to have trouble with
> the D-700 "APO" not turning its self off in APRS mode.
>
> Is there a software fix? Can the TM-D-700 programming be changed
> through the serial port, as a boot-strap download function, or
> does it need to have a prom changed to update its brains?
>
> Is kenwood keeping a "stuff to adjust" list?
>
> Ed N3SDO
>
> -----Original Message-----
> From: Robbie Robertson [mailto:mwrobertson@mediaone.net]
> Sent: Tuesday, August 08, 2000 10:01 AM
>
> "Ronald G. Parsons" wrote:
> >
> > The AUTOMATIC POWER OFF function does not seem to function properly when
> > the D700 has one band in APRS mode and beaconing or digipeating.
> >
> > However, my unit does not shut off even though no buttons are pressed.
> >
> > Is this a bug? Is there a workaround?
>

```
> APO only works if no buttons are pushed by you, OR NO
> signals heard on either band for the alloted time
> specified in APO... As soon as a signal breaks squelch,
> the APO function is reset..
>
> Good luck
>
> Robbie
>
> ---
> You are currently subscribed to htaprs as: toms@inconnect.com
> To unsubscribe send a blank email to leave-htaprs-16264I@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

---

17. [picsig] GPS-E-2.EXE help....

From: Doug McFadden <kc7imr@orednet.org>
Date: Wed, 16 Aug 2000 19:00:11 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103165-2000.08.16-21.08.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Help....

What is wrong with my Win-95 installation?  I get the following message
when I try to run "GPS-E-2.EXE" to set up my parameters:

"The GPS-E-2.EXE files is linked to missing export OLEAUT32.DLL"

Is there a simple DOS or ? program to edit the hex file?  Or could we get
the offsets into the file for the parameters?  I sure would like to put
this Pic-e into service some day.

thanks,
73 de Doug
KC7IMR


Trying to establish voice contact ... please yell into your keyboard.
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
kc7imr@orednet.org            Linux, for the GNU generation!


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

---

18. [picsig] Re: GPS-E-2.EXE help....

From: John Hansen <john@hansen.net>
Date: Wed, 16 Aug 2000 21:15:09 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103166-2000.08.16-21.18.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
As the guy who wrote this program, I can tell you I'm stumped... I've never
run across anything like this.  However, one piece of useful information
that I might be able to contribute is that GPS-E-2.EXE is specifically
designed to be self contained... that is, it does not require any
external  DLL files in order to run.  I did it this way because I kept
running into folks who lacked one or more needed dll's for many of the
programs I had written and decide to just stop using external dll's even if
it made my programs somewhat bigger.

If I were you I might try deleting GPS-E-2.EXE and reinstalling it.  Those
who know more about the inner workings of Windows than I do may be able to
provide additional assistance.

John, W2FS


At 07:00 PM 8/16/00 -0700, you wrote:
>Help....
>
>What is wrong with my Win-95 installation?  I get the following message
```

```
>when I try to run "GPS-E-2.EXE" to set up my parameters:
>
>"The GPS-E-2.EXE files is linked to missing export OLEAUT32.DLL"
>
>Is there a simple DOS or ? program to edit the hex file?  Or could we get
>the offsets into the file for the parameters?  I sure would like to put
>this Pic-e into service some day.
>
>thanks,
>73 de Doug
>KC7IMR
>
>
>Trying to establish voice contact ... please yell into your keyboard.
>-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
>kc7imr@orednet.org            Linux, for the GNU generation!
>
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

19. [picsig] Re: GPS-E-2.EXE help....

From: Jeff King <jeff@aerodata.net>
Date: Wed, 16 Aug 2000 22:29:49 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103168-2000.08.16-21.33.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
But isn't that a system .dll? I checked all my systems, ones I knew I didn't
run GPS-E-2 on and I see it on all of them. So while your program may be
self contained, if a core .dll was missing, then might that be the problem?

IMHO, I'd just grab the file from another computer (same OS) and drop it
in  \windows\system and see if that helps.

Jeff


John Hansen wrote:

> As the guy who wrote this program, I can tell you I'm stumped... I've never
> run across anything like this.  However, one piece of useful information
> that I might be able to contribute is that GPS-E-2.EXE is specifically
> designed to be self contained... that is, it does not require any
> external  DLL files in order to run.  I did it this way because I kept
> running into folks who lacked one or more needed dll's for many of the
> programs I had written and decide to just stop using external dll's even if
> it made my programs somewhat bigger.
>
> If I were you I might try deleting GPS-E-2.EXE and reinstalling it.  Those
> who know more about the inner workings of Windows than I do may be able to
> provide additional assistance.
>
> John, W2FS
>
> At 07:00 PM 8/16/00 -0700, you wrote:
> >Help....
> >
> >What is wrong with my Win-95 installation?  I get the following message
> >when I try to run "GPS-E-2.EXE" to set up my parameters:
> >
> >"The GPS-E-2.EXE files is linked to missing export OLEAUT32.DLL"
> >
> >Is there a simple DOS or ? program to edit the hex file?  Or could we get
> >the offsets into the file for the parameters?  I sure would like to put
> >this Pic-e into service some day.
> >
> >thanks,
> >73 de Doug
> >KC7IMR
> >
> >
> >Trying to establish voice contact ... please yell into your keyboard.
```

```
> >-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
> >kc7imr@orednet.org            Linux, for the GNU generation!
> >
> >
> >---
> >You are currently subscribed to picsig as: john@hansen.net
> >To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

20. [picsig] ASYN gps converter poll / questions..

From: "Lou" <lfaustini@atlantech.net>
Date: Wed, 16 Aug 2000 23:19:39 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103171-2000.08.16-22.23.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Hey -- sorry to bother, but is anyone using the code I wrote for the
pic12c67X
to convert the Asyn strings to NMEA ?  I have used it extensively, but I was
wondering
if anyone else is using/testing it.   Thanks!

   ---Lou


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

21. [picsig] Re: ASYN gps converter poll / questions..

From: Newton & Boswell <bozwell@gte.net>
Date: Wed, 16 Aug 2000 21:10:41 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103180-2000.08.16-23.12.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Lou,

I'd like to get a hold of that code.  Is it on the FTP site?  What's
it's filename?  I've got a Garmin Trac Pac ( GPS 25 board and active
antenna in a single package ).  It's waterproof and sealed from me
screwing up the GPS board.

Sincerely,

David Boswell
kd7kas


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

22. [picsig] FRAM FM25160 German source

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Thu, 17 Aug 2000 17:56:15 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103303-2000.08.17-13.03.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Hello,

does anyone know where to buy this Chips in Germany?

best 73 de DK3DUA
Thomas


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
```

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] Re: FRAM FM25160 German source

From: Jeff King <jeff@aerodata.net>
Date: Thu, 17 Aug 2000 14:21:44 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: tandrews@ramtron.com
Message-ID: <LYR6890-103309-2000.08.17-13.25.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thomas:

Try e-mailing this person, it's their Europeon sales office:

mailto:tandrews@ramtron.com

Regards,

Jeff King wb8wka

Thomas Rudolph wrote:

> Hello,
>
> does anyone know where to buy this Chips in Germany?
>
> best 73 de DK3DUA
> Thomas
>
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] Re: GPS-E-2.EXE help....

From: Doug McFadden <kc7imr@orednet.org>
Date: Thu, 17 Aug 2000 17:39:58 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103349-2000.08.17-20.02.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Deleting GPS-E-2.EXE and reinstalling it didn't help at all, same msg
every time. Can you publish the source code for GPS-E-2.EXE? (at least
the parts that modify the hex file?) I could then build a version under
dos and/or Linux and get the params set in the hex file, loading the hex
file is not a problem.

Thanks,
Doug

On Wed, 16 Aug 2000, John Hansen wrote:

> Date: Wed, 16 Aug 2000 21:15:09 -0400
> From: John Hansen <john@hansen.net>
> Reply-To: TAPR PIC Development Special Interest Group
>   <picsig@lists.tapr.org>
> To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
> Subject: [picsig] Re: GPS-E-2.EXE help....
>
> As the guy who wrote this program, I can tell you I'm stumped... I've never
> run across anything like this. However, one piece of useful information
> that I might be able to contribute is that GPS-E-2.EXE is specifically
> designed to be self contained... that is, it does not require any
> external DLL files in order to run. I did it this way because I kept
> running into folks who lacked one or more needed dll's for many of the
> programs I had written and decide to just stop using external dll's even if
> it made my programs somewhat bigger.
>
> If I were you I might try deleting GPS-E-2.EXE and reinstalling it. Those
> who know more about the inner workings of Windows than I do may be able to
> provide additional assistance.
>

```
> John, W2FS
>
>
> At 07:00 PM 8/16/00 -0700, you wrote:
> >Help....
> >
> >What is wrong with my Win-95 installation?  I get the following message
> >when I try to run "GPS-E-2.EXE" to set up my parameters:
> >
> >"The GPS-E-2.EXE files is linked to missing export OLEAUT32.DLL"
> >
> >Is there a simple DOS or ? program to edit the hex file?  Or could we get
> >the offsets into the file for the parameters?  I sure would like to put
> >this Pic-e into service some day.
> >

73 de Doug
KC7IMR


Trying to establish voice contact ... please yell into your keyboard.
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
kc7imr@orednet.org            Linux, for the GNU generation!


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

25. [picsig] Re: GPS-E-2.EXE help....

From: Doug McFadden <kc7imr@orednet.org>
Date: Thu, 17 Aug 2000 17:16:12 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103350-2000.08.17-20.03.08--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
On Wed, 16 Aug 2000, Jeff King wrote:

> Date: Wed, 16 Aug 2000 22:29:49 -0400
> From: Jeff King <jeff@aerodata.net>
> Reply-To: TAPR PIC Development Special Interest Group
     <picsig@lists.tapr.org>
> To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
> Subject: [picsig] Re: GPS-E-2.EXE help....
>
> But isn't that a system .dll? I checked all my systems, ones I knew I didn't
> run GPS-E-2 on and I see it on all of them. So while your program may be
> self contained, if a core .dll was missing, then might that be the problem?
>
> IMHO, I'd just grab the file from another computer (same OS) and drop it
> in  \windows\system and see if that helps.

Unfortunatly, I only have the one computer running win-95.  Maybe I can
find someone still running 95 arround here?


73 de Doug
KC7IMR


Trying to establish voice contact ... please yell into your keyboard.
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
kc7imr@orednet.org            Linux, for the GNU generation!


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

26. [picsig] Re: ASYN gps converter poll / questions..

From: "Lou" <lfaustini@atlantech.net>
Date: Fri, 18 Aug 2000 17:19:06 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-103482-2000.08.18-16.23.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
here is the code...  Enjoy. PLEASE feel free to post it on the
mavin web site.
```

Cheers!
---Lou

```
;*****************************************************************
;                    LCD Display decoder for GPS                 *
;                  Using PIC12c67X Microprocessor                 *
;*****************************************************************
;       Binary data is being read in, converted,                  *
;       and outputed. output is inverted, expecting a rs-232      *
;       driver. I suggest you use the one on the asyn board.      *
;       Port Configurations :                                     *
;                                                                 *
;       RA0 : GPS Input                                           *
;       RA1 : Serial Output_to_user (Expecting a MAX23x drvr)     *
;       RA2 : Serial Output_to_gps- wire directly to GPS-input    *
;       RA3 : INPUT, ground for non-inverted serial-output        *
;       RA4 : lock led. (pulled to gnd when locked)               *
;       RA5 : Heartbeat led. Blinks when pic is working           *
;                                                                 *
;*****************************************************************
;       processor pic 12c67x                                      *
;       code protection OFF                                       *
;       power up timer enabled                                    *
;       WDT enabled                                               *
;       INTERNAL (4MHz) oscillator                                *
;*****************************************************************
```

-----Original Message-----
From: Newton & Boswell <bozwell@gte.net>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Date: Thursday, August 17, 2000 12:05 AM
Subject: [picsig] Re: ASYN gps converter poll / questions..

>Lou,
>
>I'd like to get a hold of that code. Is it on the FTP site? What's
>it's filename? I've got a Garmin Trac Pac (GPS 25 board and active
>antenna in a single package). It's waterproof and sealed from me
>screwing up the GPS board.
>
>Sincerely,
>
>David Boswell
>kd7kas
>
>
>---
>You are currently subscribed to picsig as: lfaustini@atlantech.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
[Attachment: Disp-4 (1).hex; application/octet-stream; 7,196 bytes]

27. [picsig] failure notice (fwd)

From: Doug McFadden <kc7imr@orednet.org>
Date: Wed, 23 Aug 2000 10:58:55 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-104567-2000.08.23-13.04.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John are you 'up' all the time or hiding?

Anyway could maybe someone set up a hex file for me? Like maybe 1 minute
on one rate and 30 minutes on the other, path of 'relay, wide4-4' on both,
a bike (motorcycle) for the icon, KC7IMR-9 for the call. What did I
forget?

Sure would like to get it working.

73 de Doug
KC7IMR

Trying to establish voice contact ... please yell into your keyboard.
-=-
kc7imr@orednet.org   Linux, for the GNU generation!

```
---------- Forwarded message ----------
Date: 18 Aug 2000 19:28:03 -0700
From: MAILER-DAEMON@bouncemessage.net
To: kc7imr@orednet.org
Subject: failure notice

This is the mail transport agent at bouncemessage.net.
This message could not be delivered.

<hansen@postoffice.cc.fredonia.edu>:
141.238.1.43 does not like recipient.
Remote host said: 550 5.7.1 <hansen@postoffice.cc.fredonia.edu>... Relaying denied
Giving up.

--- Below this line is a copy of the message.


Hi John,

No luck, I still get the same msg.  I replaced the dll with a fresh copy
off a friends cd, no go, same msg.  Any more ideas?

What are the offsets into the hex file?  I can edit it by hand.


On Thu, 17 Aug 2000, John Hansen wrote:

> Date: Thu, 17 Aug 2000 20:29:41 -0400
> From: John Hansen <john@hansen.net>
> To: kc7imr@orednet.org
> Subject: Missing file
>
>       Try doing a search for the allegedly missing file.  When I did this it was
> in my c:\windows\system directory.  If it is missing or damaged on your
> system, I could email you a copy.  I must confess I still don't know why
> this is keeping you from running GPS-2-E, but then again, there's a lot
> about Windows I don't understand!
>
> John, W2FS
>
>

73 de Doug
KC7IMR


Trying to establish voice contact ... please yell into your keyboard.
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
kc7imr@orednet.org            Linux, for the GNU generation!



---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

28. [picsig] Re: failure notice (fwd)output hex file

From: Ken Isom <isomk@airmail.net>
Date: Wed, 23 Aug 2000 19:48:39 -0500 (CDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: kc7imr@orednet.org
Message-ID: <LYR6890-104689-2000.08.23-19.55.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Doug,

Heres an attached hex file setup for:

kc7imr-9    relay,wide,wide    standard icon
position 1 manual/auto set to 1 minute for testing purposes
and
position 2 manual/auto set to 30 minutes for normal operation.

beacon set to send "comments to kc7imr@orednet.org" every 5 transmissions.

This should be enough to checkout your hardware.

Now have fun getting your serial programmer to work.
```

Ken
kd5aia

At 10:58 AM 8/23/00 -0700, you wrote:
>John are you 'up' all the time or hiding?
>
>Anyway could maybe someone set up a hex file for me? Like maybe 1 minute
>on one rate and 30 minutes on the other, path of 'relay, wide4-4' on both,
>a bike (motorcycle) for the icon, KC7IMR-9 for the call. What did I
>forget?
>
>Sure would like to get it working.
>
>73 de Doug
>KC7IMR
>
>
[Attachment: OUTPUT.HEX; text/plain; 5,670 bytes]

29. [picsig] test2 (no text)

From: Ian Wade <wadei@ntworld.com>
Date: Fri, 25 Aug 2000 16:31:17 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-105041-2000.08.25-10.38.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

zzz

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] APRS weather questions

From: James Jefferson <jjeffers@deskmedia.com>
Date: Mon, 28 Aug 2000 08:56:19 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-105580-2000.08.28-09.03.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have written a command line utility that takes arguments and formats them
into a APRS WX packet.

I have some questions about luminosity, snowfall, and raw rain count.

1) The aprs spec (version 101m) isn't very clear about how luminosity is
included in the packet. The spec says:
Other parameters that are available on some weather station units include:
"L = luminosity (in watts per square meter) 999 and below.
l l (lower-case letter "L") = luminosity (in watts per square meter)
1000 and above.
(L is inserted in place of one of the rain values).
s = snowfall (in inches) in the last 24 hours.
# = raw rain counter"

What does it mean by replacing one of the rain values? Can someone show me
an example packet? One with luminosity less then 1000 and a packet where
luminosity is over 1000.

2) How many characters long is the snowfall data? s1? s12? s123? s1234?
3) How many characters long is the raw rain counter data? #1? #12? #123? #1234?

Hopefully my questions are not too confusing. I would not be surprised if
they are, because I'm terribly confused with the APRS spec.

-James Jefferson KB0THN

PS - I have asked the aprsspec group the same questions, but I have not
gotten an answer.

PPS - See you all at DCC!

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

31. [picsig] ANNOUNCEMENT: ARRL/TAPR 19th Annual DCC Sep. 22-24

From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 28 Aug 2000 10:23:35 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-105585-2000.08.28-09.30.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Notice:
September 1, 2000 is the last day to receive the special hotel room rate of $89/night single or double and the pre-registration price for the conference.

ARRL and TAPR 19th Annual
Digital Communications Conference
September 22-24, 2000 - Orlando, Florida

For more information see: http://www.tapr.org/dcc

Information
Mark your calendar and start making plans to attend the year's premier event in digital communications. The 19th Annual ARRL and TAPR Digital Communications Conference will be held September 22-24, 2000, in Orlando, Florida - just minutes from the Orlando International Airport.

The ARRL and TAPR Digital Communications Conference is an international forum for radio amateurs in digital communications, networking, and related technologies to meet, publish their work, and present new ideas and techniques for discussion. Presenters and attendees will have the opportunity to exchange ideas and learn about recent hardware and software advances, theories, experimental results, and practical applications. The Digital Communications Conference is not just for the digital expert, but also for digitally oriented amateurs of all levels of experience.

A Conference for the Beginner as well
The conference is not just for the digital expert. As in years past an entire session strand with beginning, intermediate, and advanced presentations on selected topics in digital communications will be offered. Some of the topics will include: APRS, Satellite Communications, TCP/IP, Digital Radio, Spread Spectrum and other introductory topics. Come to the conference and hear these topics presented by the experts!

Area Attractions
The Orlando Florida area is famous for its attractions and vacation spots. Disney World, Universal Studios, and Sea World (just to name a few) are within 15 minutes of the hotel. Shuttle service from the hotel will be available for a small fee. Cape Canaveral and Cocoa Beach are a 30 minute drive East of the hotel.

Symposia, Seminars and Banquet
Two symposia/seminars will be held which allow those with additional time and interest to make the most of the Conference. For those who may have interest in just one symposium or seminar, registration for the conference is not required to attend these activities. This allows maximum flexibility for those who may want to participate during the Digital Communications Conference, but do not have an entire weekend to devote to the event.

The Fourth APRS National Symposium will be held on Friday and will be moderated by Steve Dimse, K4HG (the developer of javAPRS). It will likely include many APRS software authors, such as Bob Bruninga, WB4APR (the father ofAPRS), Keith Sproul, WU2Z, Mark Sproul, KB2ICI (the developers of MacAPRS and WinAPRS), Brent Hildebrand, KH2Z (the developer of APRSPLUS), Mike Musick, N0QBF (developer of PocketAPRS), and other nationally known APRS leaders. Join this group for the afternoon and evening for in-depth discussions and presentations on the current and future status of APRS. This is a unique opportunity to gain insight into this fast-growing digital aspect of amateur operations that combines computers, packet radio, and GPS (Global Positioning System).

On Saturday night the DCC Banquet will be held. A guest speaker will speak after the banquet and a prize drawing will top the evening. The Grand Prize is a Palm VII Personal Digital Assistant and Synergy Systems LLC has donated two M12 development kits and many more.

The Sunday morning seminar will be focused on PIC development, design, and programming. This five-and-a-half hour seminar will focus on the things you need to know now in order to understand and begin to participate in PIC development.

Co-Hosts
The 2000 ARRL and TAPR Digital Communications Conference local co-hosts will be:
Lake Monroe Amateur Radio Society
  (http://www.qsl.net/lmars/),
Orange County ARES/RACES
  (http://evcom.net/~jvoisin/ares.htm),
Seminole County ARES/RACES
  (http://wwww.geocities.com/capecanaveral/launchpad/4773),
and Orlando Amateur Radio Club
  (http://www.oarc.org/).

International Co-Hosts PRUG (Packet Radio User Group of Japan) will be the International co-host for a third year running. PRUG will be hosting an informal social Friday evening before their seminar and symposium is held. Visit http://www.prug.or.jp for more information about PRUG.

Hotel
Conference presentations, meetings, and seminars will be held at the Orlando Airport Marriott. It is highly recommended that you book your room prior to arriving. A special DCC room rate of $89/single and $89/double per night has been blocked for 50 rooms and is available until September 1st, 2000. Once the 50 rooms have been reserved, room rates will increase. So be sure to book your rooms early! The hotel provides transportation to and from the Orlando International Airport. Please contact the hotel to arrange specific transportation needs.

Orlando Airport Marriott (conference hotel)
7499 Augusta Drive
Orlando, FL 32822
Phone 407-851-9000, Fax 407-857-6211
(http://marriotthotels.com/MCOAP/)

What you can expect at DCC 2000
- A full day of papers and breakouts for the beginner to the advanced
- Two seminars/symposiums
- The fifth annual Student Paper session.
- A banquet with Special Guest Speaker.
- Informal get-togethers throughout the weekend.
- TAPR Membership Meeting
- An event at which the most important new developments in amateur
  digital communications are announced.
- Digital 'movers and shakers' from all over the world in attendance.

There are few activities where your participation can be so much fun and important! What a great way to share and renew your enthusiasm for digital amateur radio! A get-together with colleagues and bringing each other up to date on your latest work -- all this, and more, for an unforgettable weekend of amateur radio and digital communications. We hope to see you at the ARRL and TAPR Digital Communications Conference on September 22-24, 2000!

Full information on the conference and hotel information can be obtained by contacting:

Tucson Amateur Packet Radio
Phone: (940) 383-0000.
Fax: (940) 566-2544
Email: tapr@tapr.org
Web: http://www.tapr.org

Registration Form
Contact the TAPR office by Phone 940-383-0000, Fax 940-566-2544, or Internet: http://www.tapr.org and tapr@tapr.org to register or for additional information.

Conference Registration includes: Conference Proceedings, Sessions, Meetings, and Lunch on Saturday.

- Pre-Registration (before Sept 1st)

                          $45.00 _____

- Registration (after Sept 1) or at door

                          $55.00 _____

- Saturday Evening Dinner (Limited Space)
Dinner with Guest Speaker

Prize Drawing

                        $30.00 _____

Symposia/Seminars

- 4th Annual APRS National Symposium
Friday, 1pm - 7pm. $25.00 _____

- Sunday Seminar
PIC Design, Development, and Programming

Sunday, 8:30 am - 2 pm. $20.00 _____

    TOTAL _____

Name/Call:

Street Address:

City/State/Zip:

Country:

Phone Number:

Email:

Charge my credit card (circle one):

VISA   MasterCard

Acct:

Expiration Date:

Signature on card:

Mail completed registration form with check to:
TAPR
8987-309 E Tanque Verde Rd #3378
Tucson, AZ 85749-9399

Or check http://www.tapr.org/dcc for an on-line registration form.

A registration packet will be mailed in September upon receipt of
registration form and payment.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] Re: APRS weather questions

From: Steve Dimse <sdimse@earthlink.net>
Date: Mon, 28 Aug 2000 10:23:44 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-105591-2000.08.28-09.32.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/28/00 9:56 AM James Jefferson (jjeffers@deskmedia.com) wrote:

>1) The aprs spec (version 101m) isn't very clear about how luminosity is
>included in the packet. The spec says:
>Other parameters that are available on some weather station units include:
>"L = luminosity (in watts per square meter) 999 and below.
>l l (lower-case letter "L") = luminosity (in watts per square meter)
>1000 and above.
>(L is inserted in place of one of the rain values).
>s = snowfall (in inches) in the last 24 hours.
># = raw rain counter"
>
>What does it mean by replacing one of the rain values? Can someone show me
>an example packet? One with luminosity less then 1000 and a packet where
>luminosity is over 1000.
>
Replace the r, p, or P with L.

No one is likely to be parsing this, so don't expect results to show
anywhere...

>2) How many characters long is the snowfall data? s1? s12? s123? s1234?
>3) How many characters long is the raw rain counter data? #1? #12? #123?
>#1234?
>
The reason no one has answered is I'm pretty sure no one has ever used
any of these, hence they are undefined. Use whatever you need, but again
do not expect them to show anywhere...

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] Re: APRS weather questions

From: Bob Bruninga <bruninga@nadn.navy.mil>
Date: Mon, 28 Aug 2000 10:29:48 -0400 (EDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-105592-2000.08.28-09.37.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 28 Aug 2000, James Jefferson wrote:

> I have some questions about luminosity, snowfall, and raw rain count.
>
> 1) The aprs spec (version 101m) isn't very clear about how luminosity is
> included in the packet. The spec says:
> Other parameters that are available on some weather station units include:
> "L = luminosity (in watts per square meter) 999 and below.
> l l (lower-case letter "L") = luminosity (in watts per square meter)
> 1000 and above.
> (L is inserted in place of one of the rain values).
> s = snowfall (in inches) in the last 24 hours.
> # = raw rain counter"
>
> What does it mean by replacing one of the rain values?

Take out rxxx and insert Lxxx

> Can someone show me
> an example packet? One with luminosity less then 1000 and a packet where
> luminosity is over 1000.

   L999 is a luminosity of 999
   l101 is a luminosity of 1101

> 2) How many characters long is the snowfall data? s1? s12? s123? s1234?

s123

> 3) How many characters long is the raw rain counter data? #1? #12? #123? #1234?

#1234

Hope that helps..
bob
>
> Hopefully my questions are not too confusing. I would not be surprised if
> they are, because I'm terribly confused with the APRS spec.
>
> -James Jefferson KB0THN
>
> PS - I have asked the aprsspec group the same questions, but I have not
> gotten an answer.
>
> PPS - See you all at DCC!
>
> ---
> You are currently subscribed to picsig as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

APRSdos REPLY/COMMENT:

Reply mail addr: wb4apr@amsat.org
US mail address: 115 old Farm Ct, Glen Burnie, MD 21060
See DAYTON97 HISTORY: http://web.usna.navy.mil/~bruninga/dayton.html
See Maryland APRS LIVE: http://web.usna.navy.mil/~bruninga/aprs.html
See GPS on ANY radio: http://www.tapr.org/tapr/html/mic-e.html

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] US$ 50 Delorme Tripmate GPS ?

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Tue, 29 Aug 2000 17:26:25 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106043-2000.08.29-15.28.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

Did you see this US$ 50 GPS ?

http://www.delorme.com/user/bargains.htm

Any comments ?

Marcelo Puhl
Mensa member #052198
http://www.mensa.org
mark@plug-in.com.br

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

35. [picsig] re: US$ 50 Delorme Tripmate GPS?

From: Steven Ciciora <ciciora@Ciciora.com>
Date: Wed, 30 Aug 2000 13:28:05 -0600 (MDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106417-2000.08.30-14.33.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've got one. Paid new price for it, though. For some reason, on power up, after it sends a 'hello' type message, it sends something like 'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it talks NEMA. Search the web. Some people just jumper tx out to rx in. Also, I think you have to activate DTR to apply power to it. If you are really interested, I am writing my first visual basic program to talk to it. I can also look up what commands it puts out.

- Steve KB0PJF

> Hi,
>
> Did you see this US$ 50 GPS ?
>
> http://www.delorme.com/user/bargains.htm
>
> Any comments ?
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

36. [picsig] re: US$ 50 Delorme Tripmate GPS?

From: "Larry P. Thomas wa0gwa" <lpthomas@krell.com>
Date: Wed, 30 Aug 2000 15:08:44 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106425-2000.08.30-15.15.37--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Does anyone know if this unit puts out altitude data above 60,000 feet. In other words, might it be usable in a balloon package.

Later
Larry
- Imagine it / Achieve it - Dream it / Become it -
  Larry P. Thomas   wa0gwa voice : 1 913 888-0282
  Krell Technologies   fax :
  8960 Bond   pager : 1 913 617-HELP
  Overland Park, KS   www.krell.com
  66214-1722   USA   lpthomas@krell.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

37. [picsig] re: US$ 50 Delorme Tripmate GPS? <LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.org>

From: "Roger D. Rines" <rdrines@pacbell.net>
Date: Wed, 30 Aug 2000 13:21:00 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106426-2000.08.30-15.27.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Steve,

I just picked up one of the devices @ the refurbished price and would
be interested in hearing what you learn. I'm hoping to connect it to
my PIC-E when I get it figured out.

Thanks,
Roger...
WB1CFQ

-----Original Message-----
From: bounce-picsig-11446@lists.tapr.org
[mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Steven
Ciciora
Sent: Wednesday, August 30, 2000 12:28 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] re: US$ 50 Delorme Tripmate GPS?

I've got one. Paid new price for it, though. For some reason, on
power
up, after it sends a 'hello' type message, it sends something like
'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it
talks
NEMA. Search the web. Some people just jumper tx out to rx in.
Also, I
think you have to activate DTR to apply power to it. If you are
really
interested, I am writing my first visual basic program to talk to it.
I
can also look up what commands it puts out.

- Steve KB0PJF

> Hi,
>
> Did you see this US$ 50 GPS ?
>
> http://www.delorme.com/user/bargains.htm
>
> Any comments ?
>

You are currently subscribed to picsig as: rdrines@pacbell.net
To unsubscribe send a blank email to
leave-picsig-6890E@lists.tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

38. [picsig] re: US$ 50 Delorme Tripmate GPS? <LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.org>

From: Alan Crosswell <alan@columbia.edu>
Date: Wed, 30 Aug 2000 16:28:05 EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106427-2000.08.30-15.34.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Hello Steve,
>
> I just picked up one of the devices @ the refurbished price and would
> be interested in hearing what you learn. I'm hoping to connect it to
> my PIC-E when I get it figured out.
>
> Thanks,
> Roger...
> WB1CFQ
>
> -----Original Message-----
> From: bounce-picsig-11446@lists.tapr.org
> [mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Steven
> Ciciora
> Sent: Wednesday, August 30, 2000 12:28 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] re: US$ 50 Delorme Tripmate GPS?
>
>
> I've got one. Paid new price for it, though. For some reason, on
> power
> up, after it sends a 'hello' type message, it sends something like
> 'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it
> talks
> NEMA. Search the web. Some people just jumper tx out to rx in.
> Also, I
> think you have to activate DTR to apply power to it. If you are
> really
> interested, I am writing my first visual basic program to talk to it.
> I
> can also look up what commands it puts out.
>
> - Steve KB0PJF
>
> > Hi,
> >
> > Did you see this US$ 50 GPS ?
> >
> > http://www.delorme.com/user/bargains.htm
> >
> > Any comments ?
> >
>
>
> ---
> You are currently subscribed to picsig as: rdrines@pacbell.net
> To unsubscribe send a blank email to
> leave-picsig-6890E@lists.tapr.org
>
>
> ---
> You are currently subscribed to picsig as: n2ygk@weca.org
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

See http://www.users.cloud9.net/~alan/ham/aprs/ and search for "Tripmate"....

73 de Alan N2YGK

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

39. [picsig] re: US$ 50 Delorme Tripmate GPS? <LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.or g>

From: John Hansen <john@hansen.net>
Date: Wed, 30 Aug 2000 15:42:46 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106430-2000.08.30-15.45.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You shouldn't have any trouble hooking it to your PIC-E. The original
Tripmate was the GPS I was using when I wrote GPS-2-E. You will find that

the Tripmate is a bit slow to achieve a lock relative to other units, but
other than that it should work great.

John W2FS

At 01:21 PM 8/30/00 -0700, you wrote:
>Hello Steve,
>
>I just picked up one of the devices @ the refurbished price and would
>be interested in hearing what you learn. I'm hoping to connect it to
>my PIC-E when I get it figured out.
>
>Thanks,
>Roger...
>WB1CFQ
>
>-----Original Message-----
>From: bounce-picsig-11446@lists.tapr.org
>[mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Steven
>Ciciora
>Sent: Wednesday, August 30, 2000 12:28 PM
>To: TAPR PIC Development Special Interest Group
>Subject: [picsig] re: US$ 50 Delorme Tripmate GPS?
>
>
>I've got one. Paid new price for it, though. For some reason, on
>power
>up, after it sends a 'hello' type message, it sends something like
>'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it
>talks
>NEMA. Search the web. Some people just jumper tx out to rx in.
>Also, I
>think you have to activate DTR to apply power to it. If you are
>really
>interested, I am writing my first visual basic program to talk to it.
>I
>can also look up what commands it puts out.
>
>- Steve KB0PJF
>
> > Hi,
> >
> > Did you see this US$ 50 GPS ?
> >
> > http://www.delorme.com/user/bargains.htm
> >
> > Any comments ?
> >
>
>
>---
>You are currently subscribed to picsig as: rdrines@pacbell.net
>To unsubscribe send a blank email to
>leave-picsig-6890E@lists.tapr.org
>
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] re: US$ 50 Delorme Tripmate GPS?

From: Brian Short <k7on@earthlink.net>
Date: Wed, 30 Aug 2000 22:13:53 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106474-2000.08.30-17.21.05--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just connected my TripMate to my TinyTrak and it works fine.

Here is how to connect a TripMate, in general.

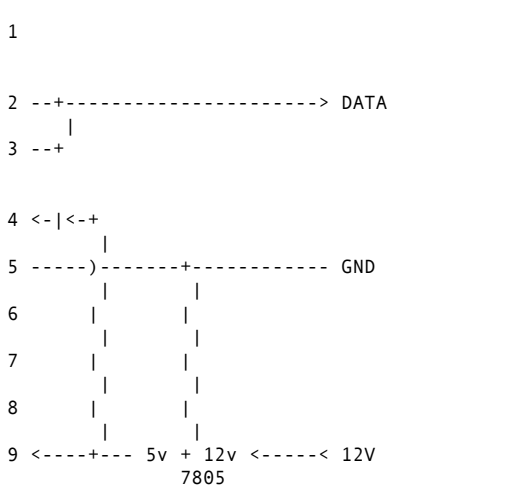
There is likely more than one way to utilize a Tripmate
as a tracker, but below is what I've learned/done so far:

First, open the unit, remove the batteries, pull the plug
connecting the battery pack. Next, install a small jumper
between where the RED wire was and the previously
unused center pin. Close the unit.

Build a regulator using a 3-terminal regulator and a
couple capacitors. The Tripmate can now be powered
via RI pin 9, BUT do NOT connect the 12v directly. I used
an 5v 3-terminal regulator. Connect the regulated power
to pin 9.

Now, connect the regulated output to DTR pin 4. This
activates the Tripmate.

Connect pin 2 and 3 together, so that the Tripmate can
initialize itself.



What I like is that there is no permanent modification to the
Tripmate.

Hope it helps.

At 07:28 PM 8/30/00, you wrote:
>I've got one. Paid new price for it, though. For some reason, on power
>up, after it sends a 'hello' type message, it sends something like
>'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it talks
>NEMA. Search the web. Some people just jumper tx out to rx in. Also, I
>think you have to activate DTR to apply power to it. If you are really
>interested, I am writing my first visual basic program to talk to it. I
>can also look up what commands it puts out.
>
>- Steve KB0PJF
>
> > Hi,
> >
> > Did you see this US$ 50 GPS ?
> >
> > http://www.delorme.com/user/bargains.htm
> >
> > Any comments ?

--
Seek those who find your road agreeable, your personality and mind
stimulating, your philosophy acceptable, and your experience helpful.
Let those who do not, seek their own kind. -Henri Fabre
--
mailto:k7on@earthlink.net
--

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] re: US$ 50 Delorme Tripmate GPS?

From: Ray Vaughan <ray@rayvaughan.com>
Date: Wed, 30 Aug 2000 18:54:19 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106484-2000.08.30-18.01.17--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 10:13 PM 8/30/00 +0000, you wrote:
>I just connected my TripMate to my TinyTrak and it works fine.

Under the heading of 'now you tell me...' there are some great TripMate FAQs on the net. Looks like you've discovered the major modifications. I had the 3 legged regulator on mine. I worked it into a DB-9 to DB-25 shell with an external heat sink for the regulator. I joked with people that a good adaptor always has a heat sink for those high data rates. Since I use a KPC-3 in the car, I used it's DB-25 power-in pin. So the DB-9 to 25 had a 12 Volt power tail on it. From there, 12 v goes to the TNC, 5 v to the Tripmate. I even power the HT202 radio from the radio DB-9 on the TNC(not recommended since current might be too much for the TNC traces.). The result was one power connector for everything. It worked fine until I got a dead battery at the Airport once. Not sure if it was the low voltage or the jump I got, but the Tripmate never came back. The TNC was fine. Still hope to some day find a schematic on-line to I can maybe do a repair on it. Lots of SMT, but maybe I'll get lucky. Nothing to lose at this point.

Here are some FAQ's to check out:

http://vancouver-webpages.com/pub/peter/tripmate.faq

http://www.asahi-net.or.jp/~KN6Y-GTU/tripmate/trmfaqe.html

Here's another one that even shows the Tripmate dissected and an internal voltage regulator.

http://www.qsl.net/kd4rdb/tripmate.htm

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

42. [picsig] Re: picsig digest: August 30, 2000

From: "SPG LTDA" <spg@spg.com.br>
Date: Thu, 31 Aug 2000 16:41:23 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-106791-2000.08.31-15.04.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Marcelo,

Podes me mandar o conteúdo do diskete do Nokia 6120i ? Tenho aqui um cabo
... Só falta comprar o telefone.

73,

Rodrigo Salomoni
SPG - Soluções em Posicionamento Global LTDA
http://www.spg.com.br
Telefones 51 2333277 51 99751095
FAX 51 2319851
[Lat: -30° 03' 09.7129" Lon: -51° 13' 18.7271" HAE: 50.845m | WGS84]

----- Original Message -----
From: TAPR PIC Development Special Interest Group digest
<picsig@lists.tapr.org>
To: picsig digest recipients <picsig@lists.tapr.org>
Sent: Thursday, August 31, 2000 2:01 AM
Subject: picsig digest: August 30, 2000

> TAPR PIC Development Special Interest Group Digest for Wednesday, August
30, 2000.
>
> 1. re: US$ 50 Delorme Tripmate GPS?
> 2. re: US$ 50 Delorme Tripmate GPS?
> 3. re: US$ 50 Delorme Tripmate GPS?
<LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.org>
> 4. re: US$ 50 Delorme Tripmate GPS?

<LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.org>
> 5. re: US$ 50 Delorme Tripmate GPS?
<LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.or g>
> 6. re: US$ 50 Delorme Tripmate GPS?
> 7. re: US$ 50 Delorme Tripmate GPS?
>
> --
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
> From: Steven Ciciora <ciciora@Ciciora.com>
> Date: Wed, 30 Aug 2000 13:28:05 -0600 (MDT)
> X-Message-Number: 1
>
> I've got one. Paid new price for it, though. For some reason, on power
> up, after it sends a 'hello' type message, it sends something like
> 'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it talks
> NEMA. Search the web. Some people just jumper tx out to rx in. Also, I
> think you have to activate DTR to apply power to it. If you are really
> interested, I am writing my first visual basic program to talk to it. I
> can also look up what commands it puts out.
>
> - Steve KB0PJF
>
> > Hi,
> >
> > Did you see this US$ 50 GPS ?
> >
> > http://www.delorme.com/user/bargains.htm
> >
> > Any comments ?
> >
>
>
> --
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
> From: "Larry P. Thomas wa0gwa" <lpthomas@krell.com>
> Date: Wed, 30 Aug 2000 15:08:44 -0500
> X-Message-Number: 2
>
> Does anyone know if this unit puts out altitude data above 60,000 feet.
In
> other words, might it be usable in a balloon package.
>
> Later
> Larry
> - Imagine it / Achieve it - Dream it / Become it -
>   Larry P. Thomas   wa0gwa voice : 1 913 888-0282
>   Krell Technologies   fax :
>   8960 Bond   pager : 1 913 617-HELP
>   Overland Park, KS   www.krell.com
>   66214-1722   USA   lpthomas@krell.com
>
>
> --
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
<LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.org>
> From: "Roger D. Rines" <rdrines@pacbell.net>
> Date: Wed, 30 Aug 2000 13:21:00 -0700
> X-Message-Number: 3
>
> Hello Steve,
>
> I just picked up one of the devices @ the refurbished price and would
> be interested in hearing what you learn. I'm hoping to connect it to
> my PIC-E when I get it figured out.
>
> Thanks,
> Roger...
> WB1CFQ
>
> -----Original Message-----
> From: bounce-picsig-11446@lists.tapr.org
> [mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Steven
> Ciciora
> Sent: Wednesday, August 30, 2000 12:28 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] re: US$ 50 Delorme Tripmate GPS?

>
>
> I've got one. Paid new price for it, though. For some reason, on
> power
> up, after it sends a 'hello' type message, it sends something like
> 'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it
> talks
> NEMA. Search the web. Some people just jumper tx out to rx in.
> Also, I
> think you have to activate DTR to apply power to it. If you are
> really
> interested, I am writing my first visual basic program to talk to it.
> I
> can also look up what commands it puts out.
>
> - Steve KB0PJF
>
> > Hi,
> >
> > Did you see this US$ 50 GPS ?
> >
> > http://www.delorme.com/user/bargains.htm
> >
> > Any comments ?
> >
>
>
> ---
> You are currently subscribed to picsig as: rdrines@pacbell.net
> To unsubscribe send a blank email to
> leave-picsig-6890E@lists.tapr.org
>
>
> --
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
<LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.org>
> From: Alan Crosswell <alan@columbia.edu>
> Date: Wed, 30 Aug 2000 16:28:05 EDT
> X-Message-Number: 4
>
> > Hello Steve,
> >
> > I just picked up one of the devices @ the refurbished price and would
> > be interested in hearing what you learn. I'm hoping to connect it to
> > my PIC-E when I get it figured out.
> >
> > Thanks,
> > Roger...
> > WB1CFQ
> >
> > -----Original Message-----
> > From: bounce-picsig-11446@lists.tapr.org
> > [mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Steven
> > Ciciora
> > Sent: Wednesday, August 30, 2000 12:28 PM
> > To: TAPR PIC Development Special Interest Group
> > Subject: [picsig] re: US$ 50 Delorme Tripmate GPS?
> >
> >
> > I've got one. Paid new price for it, though. For some reason, on
> > power
> > up, after it sends a 'hello' type message, it sends something like
> > 'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it
> > talks
> > NEMA. Search the web. Some people just jumper tx out to rx in.
> > Also, I
> > think you have to activate DTR to apply power to it. If you are
> > really
> > interested, I am writing my first visual basic program to talk to it.
> > I
> > can also look up what commands it puts out.
> >
> > - Steve KB0PJF
> >
> > > Hi,
> > >
> > > Did you see this US$ 50 GPS ?
> > >

> > > http://www.delorme.com/user/bargains.htm
> > >
> > > Any comments ?
> > >
> >
> >
> > ---
> > You are currently subscribed to picsig as: rdrines@pacbell.net
> > To unsubscribe send a blank email to
> > leave-picsig-6890E@lists.tapr.org
> >
> >
> > ---
> > You are currently subscribed to picsig as: n2ygk@weca.org
> > To unsubscribe send a blank email to leave-picsig-8278U@lists.tapr.org
> >
>
> See http://www.users.cloud9.net/~alan/ham/aprs/ and search for
"Tripmate"....
>
> 73 de Alan N2YGK
>
> ----------
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
<LYR11446-106417-2000.08.30-14.33.24--rdrines#pacbell.net@lists.tapr.or g>
> From: John Hansen <john@hansen.net>
> Date: Wed, 30 Aug 2000 15:42:46 -0400
> X-Message-Number: 5
>
> You shouldn't have any trouble hooking it to your PIC-E. The original
> Tripmate was the GPS I was using when I wrote GPS-2-E. You will find that
> the Tripmate is a bit slow to achieve a lock relative to other units, but
> other than that it should work great.
>
> John W2FS
>
>
> At 01:21 PM 8/30/00 -0700, you wrote:
> >Hello Steve,
> >
> >I just picked up one of the devices @ the refurbished price and would
> >be interested in hearing what you learn. I'm hoping to connect it to
> >my PIC-E when I get it figured out.
> >
> >Thanks,
> >Roger...
> >WB1CFQ
> >
> >-----Original Message-----
> >From: bounce-picsig-11446@lists.tapr.org
> >[mailto:bounce-picsig-11446@lists.tapr.org]On Behalf Of Steven
> >Ciciora
> >Sent: Wednesday, August 30, 2000 12:28 PM
> >To: TAPR PIC Development Special Interest Group
> >Subject: [picsig] re: US$ 50 Delorme Tripmate GPS?
> >
> >
> >I've got one. Paid new price for it, though. For some reason, on
> >power
> >up, after it sends a 'hello' type message, it sends something like
> >'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it
> >talks
> >NEMA. Search the web. Some people just jumper tx out to rx in.
> >Also, I
> >think you have to activate DTR to apply power to it. If you are
> >really
> >interested, I am writing my first visual basic program to talk to it.
> >I
> >can also look up what commands it puts out.
> >
> >- Steve KB0PJF
> >
> > > Hi,
> > >
> > > Did you see this US$ 50 GPS ?
> > >
> > > http://www.delorme.com/user/bargains.htm
> > >

> > > Any comments ?
> > >
> >
> >
> >---
> >You are currently subscribed to picsig as: rdrines@pacbell.net
> >To unsubscribe send a blank email to
> >leave-picsig-6890E@lists.tapr.org
> >
> >
> >---
> >You are currently subscribed to picsig as: john@hansen.net
> >To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
> ---
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
> From: Brian Short <k7on@earthlink.net>
> Date: Wed, 30 Aug 2000 22:13:53 +0000
> X-Message-Number: 6
>
> I just connected my TripMate to my TinyTrak and it works fine.
>
> Here is how to connect a TripMate, in general.
>
> There is likely more than one way to utilize a Tripmate
> as a tracker, but below is what I've learned/done so far:
>
> First, open the unit, remove the batteries, pull the plug
> connecting the battery pack. Next, install a small jumper
> between where the RED wire was and the previously
> unused center pin. Close the unit.
>
> Build a regulator using a 3-terminal regulator and a
> couple capacitors. The Tripmate can now be powered
> via RI pin 9, BUT do NOT connect the 12v directly. I used
> an 5v 3-terminal regulator. Connect the regulated power
> to pin 9.
>
> Now, connect the regulated output to DTR pin 4. This
> activates the Tripmate.
>
> Connect pin 2 and 3 together, so that the Tripmate can
> initialize itself.
>
>
>
> 1
>
>
> 2 --+----------------------> DATA
> |
> 3 --+
>
>
> 4 <-|<-+
> |
> 5 -----)-------+------------ GND
> | |
> 6 | |
> | |
> 7 | |
> | |
> 8 | |
> | |
> 9 <----+--- 5v + 12v <-----< 12V
>   7805
>
>
> What I like is that there is no permanent modification to the
> Tripmate.
>
> Hope it helps.
>
> At 07:28 PM 8/30/00, you wrote:
> >I've got one. Paid new price for it, though. For some reason, on power
> >up, after it sends a 'hello' type message, it sends something like
> >'ASTRAL(cr)(lf)' repeatedly, until you send it ASTRAL back. Then it

talks
> >NEMA. Search the web. Some people just jumper tx out to rx in. Also, I
> >think you have to activate DTR to apply power to it. If you are really
> >interested, I am writing my first visual basic program to talk to it. I
> >can also look up what commands it puts out.
> >
> >- Steve KB0PJF
> >
> > > Hi,
> > >
> > > Did you see this US$ 50 GPS ?
> > >
> > > http://www.delorme.com/user/bargains.htm
> > >
> > > Any comments ?
>
> --
> Seek those who find your road agreeable, your personality and mind
> stimulating, your philosophy acceptable, and your experience helpful.
> Let those who do not, seek their own kind. -Henri Fabre
> --
> mailto:k7on@earthlink.net
> --
>
>
> --
>
> Subject: re: US$ 50 Delorme Tripmate GPS?
> From: Ray Vaughan <ray@rayvaughan.com>
> Date: Wed, 30 Aug 2000 18:54:19 -0400
> X-Message-Number: 7
>
> At 10:13 PM 8/30/00 +0000, you wrote:
> >I just connected my TripMate to my TinyTrak and it works fine.
>
> Under the heading of 'now you tell me...' there are some great TripMate=
> FAQs on the net.   Looks like you've discovered the major modifications.
I=
> had the 3 legged regulator on mine. I worked it into a DB-9 to DB-25
shell=
> with an external heat sink for the regulator. I joked with people that
a=
> good adaptor always has a heat sink for those high data rates.   Since I=
> use a KPC-3 in the car, I used it's DB-25 power-in pin.   So the DB-9 to
25=
> had a 12 Volt power tail on it. From there, 12 v goes to the TNC, 5 v
to=
> the Tripmate.   I even power the HT202 radio from the radio DB-9 on the=
> TNC(not recommended since current might be too much for the TNC traces.).
=
> The result was one power connector for everything. It worked fine until
I=
> got a dead battery at the Airport once. Not sure if it was the low
voltage=
> or the jump I got, but the Tripmate never came back. The TNC was fine. =
> Still hope to some day find a schematic on-line to I can maybe do a
repair=
> on it.   Lots of SMT, but maybe I'll get lucky. Nothing to lose at this=
> point. =20
>
> Here are some FAQ's to check out:
>
> http://vancouver-webpages.com/pub/peter/tripmate.faq
>
> http://www.asahi-net.or.jp/~KN6Y-GTU/tripmate/trmfaqe.html
>
> Here's another one that even shows the Tripmate dissected and an internal=
> voltage regulator.
>
> http://www.qsl.net/kd4rdb/tripmate.htm
>
>
>
>
>
>
>
>
> ---

>
> END OF DIGEST
>
> ---
> You are currently subscribed to picsig as: mark@plug-in.com.br
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

September 2000

Original source file: picsig.0009
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0009

1. [picsig] Viewing others on your GPS-map

From: Erik Brouwer <mlf@xs4all.nl>
Date: Sun, 03 Sep 2000 23:40:56 +0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: Mike Berg <mikeberg@midstate.tds.net>
Message-ID: <LYR6890-107359-2000.09.03-16.50.18--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello SIG,

I'm following this discussion list for almost a year now but can't
remember anyone trying this:
Ever thought of viewing other ham's position on your gps track screen? I
found out that it is possible to upload waypoints to my (good old)
Garmin GPS45 in NMEA/NMEA-mode by using the $YMWPL-command. If you do
this, a new waypoint will be added to your list and -if I have a valid
gps fix- it appears on the gps' track-log screen. When re-writing this
waypoint with another co-ordinate it moves on the map. Moving might take
about 2 seconds but that would be satisfying for 1200bps packet.

Can you imagine what it would be seeing the position of other (even
mobile) stations without using an additional device like a PalmV?
I wonder if it is possible to let the PIC-E RX-soft decode a mic-e
broadcast and put out a nmea-sentence to my gps (in stead of the usual
tnc-style output).
I have an FRAM installed on my board. And a second 16F84 for
transmitting my position won't be a problem.

For testing your GPS I wrote the following batch file:
NMEAUP.BAT

```
-----------------------------------------------------------------
mode com1:4800,n,8,1
echo $YMWPL,5216.48,N,00648.62,E,MYHOME > COM1:
:loop
PAUSE
echo $YMWPL,5216.48,N,00648.99,E,CALL01 > COM1:
PAUSE
echo $YMWPL,5216.78,N,00648.62,E,CALL01 > COM1:
PAUSE
echo $YMWPL,5216.48,N,00648.14,E,CALL01 > COM1:
PAUSE
echo $YMWPL,5216.20,N,00648.62,E,CALL01 > COM1:
goto loop:
```

```
-------------------------------------------------------------------
```

The first waypoint programmed is my home-qth (co-ordinates are in
DDMM.MM). The next positions are about half a kilometer east, north,
west and south of me. The loop will make the CALL01-waypoint move
around.
I wonder if it also works on newer gps-es. So edit the positions and try
it on your unit.

Note: I had to connect some control lines of the 9 pin RS232-connector:
pin 4 to 6 and pin 7 to 8.

73 de Erik, pe1mlf, Hengelo - Netherlands

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: Viewing others on your GPS-map

From: Steve Dimse K4HG <sdimse@netrox.net>
Date: Sun, 3 Sep 2000 20:18:38 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: "Mike Berg" <mikeberg@midstate.tds.net>
Message-ID: <LYR6890-107371-2000.09.03-19.26.16--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

On 9/3/00 5:40 PM Erik Brouwer (mlf@xs4all.nl) wrote:

>Can you imagine what it would be seeing the position of other (even
>mobile) stations without using an additional device like a PalmV?
>I wonder if it is possible to let the PIC-E RX-soft decode a mic-e
>broadcast and put out a nmea-sentence to my gps (in stead of the usual
>tnc-style output).
>I have an FRAM installed on my board. And a second 16F84 for
>transmitting my position won't be a problem.
>
Yes it could be done, all you have to do is write the software. In case
you weren't aware both the Kenwood D7 and D700 do this.

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Getting started

From: Steve Brockway <ssbrockw@swbell.net>
Date: Mon, 04 Sep 2000 00:22:10 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107414-2000.09.04-00.30.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello to all,

I am getting ready to start the process of learning to program. I have
chosen the PIC processor family as they are easily available and have a very
limited number of instructions to use, simpler is better at this stage. I
also have a small project that I would like to do so I have something to
work towards finishing.

Anyway, I have the MPLab from Microchip but I haven't purchased any kind of
programmer as of yet. I do have a PICStart available at work but it's at
work and this development will be at home (must maintain the separation if
you know what I mean, besides, work is 45 minutes away). I'm sure that I
could probably load code at work but it sure would be a lot easier to have
my own for development.

What would be a good programmer for use with the 16C/16F series? Is there a
better program than MPLab to use? Are there any good books that can be had
for learning this stuff?

Any help would be appreciated and thanks in advance.

73,
Steve
KA5YFC

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: Getting started

From: "Fernando M. I. Carreiro" <fmi@carreiro.com>
Date: Mon, 4 Sep 2000 14:04:19 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107472-2000.09.04-08.11.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Any help would be appreciated and thanks in advance.

Try the following link: "http://margo.student.utwente.nl/el/micros/pic/"

The is plenty of examples and designs for simple home-made PIC programmers connected to
the Parallel Port.
eg. PP87.ZIP has Schematic, PCB, Source Code, Binary and Documentaion.

Have Fun ...

    Fernando (fmi@carreiro.com)

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Re: Getting started

From: Jeff King <jeff@aerodata.net>
Date: Mon, 04 Sep 2000 15:36:00 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107535-2000.09.04-14.40.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve:

Get a ICD for the PIC 16F87x series. This is a extremely powerful tool for the price.
You can use it as a programmer as well as a in circuit emulator. I believe they even
go on sale once in a while, I think less then $100? I paid full price for mine, but that
was still under $200. See:

http://www.microchip.com/10/tools/picmicro/icds/mplabicd/index.htm

There are also some third party knock-offs as well, don't recall who makes them.

It just works with the PIC16F87x series, but since your learning, it shouldn't
be a major issue. There is a 28 pin and 40 pin dip part in that series as well
as SMD. The ICD is fully integrated with MPLAB as well.

Having a debugger makes a BIG difference otherwise you'll just be burn/test
or be single stepping through the MPLAB simulator.

Wish I had one when I was learning.

Good luck

Jeff

Steve Brockway wrote:

> Hello to all,
>
> I am getting ready to start the process of learning to program. I have
> chosen the PIC processor family as they are easily available and have a very
> limited number of instructions to use, simpler is better at this stage. I
> also have a small project that I would like to do so I have something to
> work towards finishing.
>
> Anyway, I have the MPLab from Microchip but I haven't purchased any kind of
> programmer as of yet. I do have a PICStart available at work but it's at
> work and this development will be at home (must maintain the separation if
> you know what I mean, besides, work is 45 minutes away). I'm sure that I
> could probably load code at work but it sure would be a lot easier to have
> my own for development.
>
> What would be a good programmer for use with the 16C/16F series? Is there a
> better program than MPLab to use? Are there any good books that can be had
> for learning this stuff?
>
> Any help would be appreciated and thanks in advance.
>
> 73,
> Steve
> KA5YFC
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: Getting started

From: David Kelly <dkelly@hiwaay.net>
Date: Mon, 04 Sep 2000 18:22:16 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-107562-2000.09.04-18.45.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff King writes:
> Steve:
>
> Get a ICD for the PIC 16F87x series. This is a extremely powerful tool
> for the price. You can use it as a programmer as well as a in circuit
> emulator. I believe they even go on sale once in a while, I think less
> then $100? I paid full price for mine, but that was still under $200.
> See:
>
> http://www.microchip.com/10/tools/picmicro/icds/mplabicd/index.htm

See if you can get invited to one of Microchip's all day seminars. Will
probably have to pay $50 and take a day of vacation. While the ICD is
$200 most elsewhere you can get them for $100 or $150 at the seminar.
And lots of documentaion and samples.

--
David Kelly N4HHE, dkelly@hiwaay.net
==
The human mind ordinarily operates at only ten percent of its
capacity -- the rest is overhead for the operating system.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] PIC RX

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Mon, 4 Sep 2000 19:08:56 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107566-2000.09.04-19.14.26--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>>Can you imagine what it would be seeing the position of other (even
>>mobile) stations without using an additional device like a PalmV?
>>I wonder if it is possible to let the PIC-E RX-soft decode a mic-e
>>broadcast and put out a nmea-sentence to my gps (in stead of the usual
>>tnc-style output).
>>I have an FRAM installed on my board. And a second 16F84 for
>>transmitting my position won't be a problem.
>
>Yes it could be done, all you have to do is write the software. In case
>you weren't aware both the Kenwood D7 and D700 do this.

>Steve K4HG

Due to time constraints, I'll let someone else tackle this one.
However, since my writing style is fairly simple, it shouldn't
be too hard for someone to alter one of my programs for this
purpose. The position would have to be parsed from the
packet data and compressed packets decompressed.
Then these bytes rearranged to NMEA format with commas
separating the data fields. Empty fields are two adjacent commas
and they usually require a xor'd type checksum at the end.
 Here's a good place to start for more info.
http://vancouver-webpages.com/pub/peter/index.html

Good luck & 73
Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Re: Viewing others on your GPS-map

From: "K.Hirschelmann" <k.hirschelmann@mainz.netsurf.de>
Date: Tue, 05 Sep 2000 18:32:53 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107732-2000.09.05-11.54.56--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Erik Brouwer wrote :

> Ever thought of viewing other ham's position on your gps track screen? I
> found out that it is possible to upload waypoints to my (good old)
> Garmin GPS45 in NMEA/NMEA-mode by using the $YMWPL-command. If you do
> this, a new waypoint will be added to your list and -if I have a valid
> gps fix- it appears on the gps' track-log screen. When re-writing this
> waypoint with another co-ordinate it moves on the map. Moving might take
> about 2 seconds but that would be satisfying for 1200bps packet.

> Can you imagine what it would be seeing the position of other (even
> mobile) stations without using an additional device like a PalmV?

> I wonder if it also works on newer gps-es. So edit the positions and try
> it on your unit.

Hello Erik,
i am just making similar tests with $GPWPL-Protocols (like being send
from Kenwood TH-D7 or TM-D700). It is working with Garmins "eMap" when
using latest Software-Versions V2.51 or V2.52 (downloadable from
Garmin's homepage).
It is not running with current Software-Versions of "Streetfinder" and
e.g. "GPS162", but let's wait for coming updates.....

For use with other radios and TNCs than those from Kenwood, i have
programmed a small Microcontroller-Unit (using Atmels AT89C2051) to
convert $GPRMC to $GPWPL. Until now, the WP-Name not yet is generated
from calls of received stations, but can be freely typed by the user and
is fix stored within an EEPROM.
I am using this unit not in conjunction with APRS, but with
Standard-NMEA-Data being received by radio on separate frequenies.
Position-Data within RMC-Protocols are causing permanently renewed named
markers on eMap-Display. So very easy it always is possible, to follow
positions of others in relation to one's own.

73 de Klaus DJ7OO from Germany

http://www.kh-gps.de

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Re: Viewing others on your GPS-map

From: Erik Brouwer <mlf@xs4all.nl>
Date: Tue, 05 Sep 2000 21:20:42 +0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107752-2000.09.05-14.29.03--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Klaus,

Could it be you're visiting this weekend UKW-Tagung (Ham-meeting) in Mannheim?

If so, I can try to meet you. Seems you have lots of interesting developments
on your homepage.

73, Erik - pe1mlf

"K.Hirschelmann" wrote:

> For use with other radios and TNCs than those from Kenwood, i have
> programmed a small Microcontroller-Unit (using Atmels AT89C2051) to
> convert $GPRMC to $GPWPL. Until now, the WP-Name not yet is generated
> from calls of received stations, but can be freely typed by the user and
> is fix stored within an EEPROM.
>
> 73 de Klaus DJ7OO from Germany
>
> http://www.kh-gps.de

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Re: Viewing others on your GPS-map

From: "K.Hirschelmann" <k.hirschelmann@mainz.netsurf.de>
Date: Wed, 06 Sep 2000 00:32:34 +0000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107787-2000.09.05-17.47.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Erik

> Could it be you're visiting this weekend UKW-Tagung (Ham-meeting) in Mannheim?

I would like to visit this meeting. Mannheim only is 60 Km south of my
location Mainz, but unfortunately this weekend i have to go to Berlin
for a Business-Trip. Before this, from Thursday to Saturday i will be in
Amsterdam.

> If so, I can try to meet you. Seems you have lots of interesting developments
> on your homepage.

I feel sorry about this, but at least we can held contact via E-Mails.

73 de Klaus DJ7OO

--

PLEASE VISIT ALSO MY HOMEPAGE :
http://rover.wiesbaden.netsurf.de/~hirschgps
or
http://www.kh-gps.de

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] FRAM Connections

From: "James A. Martin Jr." <james@jmartin.net>
Date: Tue, 5 Sep 2000 18:25:14 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-107800-2000.09.05-18.32.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

What is the best way to add a FRAM to a PIC-E?

What PIN's on the PIC do most people use?

Any pictures?

Thanks in advance,
James M.
KD5HAD

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] re: Getting Started

From: Bill Hosking <William_Hosking-P05328@email.mot.com>
Date: Thu, 07 Sep 2000 11:50:42 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108119-2000.09.07-13.58.00--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I purchased the Warp-13 programmer from
http://www.new-elect.com/products.htm
and have been very happy with it.

Bill W7JSW

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] re: Getting Started

From: Jeff King <jeff@aerodata.net>
Date: Thu, 07 Sep 2000 15:01:54 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-108121-2000.09.07-14.06.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'll second that on the WARP-13

FYI, one interesting thing about it is with the software that comes with it,
its MUCH slower then using it in PICSTART mode under MPLAB. Not a
big deal for one or two pics, but for 3000 it does make a difference. So I use
it under MPLAB.

(The WARP-13 has a PICSTART+ compatible mode as well as its own native
mode....)

Still, a good buy.

The author is also willing to listen to suggestions (he took some of my tips to speed
up the programming cycle).

Another thing I did with it is solder a brass extension tube on the DIP socket lever, makes
it easier to get chips in and out fast. Did it with my PICSTART also.

-Jeff

Bill Hosking wrote:

> I purchased the Warp-13 programmer from
> http://www.new-elect.com/products.htm
> and have been very happy with it.
>
> Bill W7JSW
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] re: Getting Started

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Thu, 07 Sep 2000 16:57:03 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108128-2000.09.07-17.04.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff King wrote:

> FYI, one interesting thing about it is with the software that comes with it,
> its MUCH slower then using it in PICSTART mode under MPLAB.
> (The WARP-13 has a PICSTART+ compatible mode as well as its own native
> mode....)

There's another reason to use the WARP-13 under MPLAB. I found out when
KD7TA was programming his HamHUD PIC16F876 that the Newfound Electronics
software (that comes with the Warp-13) has a bug that makes it only burn
the 1st 128 bytes of EEPROM. That is fatal to the HamHUD. With the
MPLAB mode, it works fine. Don't know if Newfound has fixed this or
not.

73,

Steve Bragg KA9MVA
```
--- __ __ ___   ____ __ ____    _____
   / //_//   | / __ \/  |/  / |  / /   |
  / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |\__, / /  / / | |/ / ___ |
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
```
Steve Bragg KA9MVA   ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FIND ME WITH APRS! http://map.findu.com/ka9mva-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Re: Getting Started

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Fri, 08 Sep 2000 19:19:25 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108282-2000.09.08-19.29.01--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes, they have fixed that bug a few months back, Steve. Right after I got mine, I wrote to NewFound and he responded that the fix was on their web-site. He attached a copy of the fix to his response and that took care of it (if my memory serves me right). I emailed Tony about it later and he got the fix, too.

73 - Dale.

> There's another reason to use the WARP-13 under MPLAB. I found out when
> KD7TA was programming his HamHUD PIC16F876 that the Newfound Electronics
> software (that comes with the Warp-13) has a bug that makes it only burn
> the 1st 128 bytes of EEPROM. That is fatal to the HamHUD. With the
> MPLAB mode, it works fine. Don't know if Newfound has fixed this or
> not.
>
> 73,
>
> Steve Bragg KA9MVA

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] DCC Update 9/11/2000

From: "Steven R. Bible" <n7hpr@amsat.org>
Date: Mon, 11 Sep 2000 12:19:03 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108735-2000.09.11-11.26.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

19th Annual ARRL/TAPR Digital Communications Conference
Orlando, FL September 22-24, 2000

** Update 9/11/2000 **

A little more that one week away, the 19th Annual ARRL/TAPR Digital Communications Conference is about to begin. For detailed information about the conference, please visit the official DCC web page at http:www.tapr.org/dcc.

Registration for the conference will be taken at the door. Friday registration is for an entire afternoon APRS activities, demonstrations, and presentations. Saturday registration includes conference proceedings, lunch, and a full day of presentations. Saturday night includes Banquet, dinner speaker, and prize drawing. Sunday registration is for the PICmicro Design seminar.

Banquet Prize Drawings:
Grand Prize Kenwood TM-D700A (donated by Kenwood)
2nd Grand Prize Palm VII Personal Digital Assistant
Two Motorola Oncore M12 GPS Evaluation Kits (donated by Synergy Systems, LLC)

Map and coordinates:
A map of the conference hotel and coordinates are available at ftp://ftp.tapr.org/dcc/dcc.hotel.map.pdf

Speakers:
The following is a list of presenters. Preliminary schedule is available from ftp://ftp.tapr.org/dcc/2000.dcc.schedule.pdf

APRS Seminar - Friday September 22, 2000

John Ackerman, N9UR	APRS WG
Steve Bible, N7HPR	T-238 Weather Station
John Blowsky, KB2SCS	APRS LOOKUP
Steve Bragg, KA9MVA	HamHud
Bob Bruninga, WB4APR	APRSdos, satellite, etc.
Steve Dimse, K4HG	Internet APRS
Walter Dunckel, KD6VYV	Serial Control of D7/D700
John Hansen, W2FS	KISS TNC, D700 Keyboard

Dale Huguley, KG5QD   Weather Server
Larry Gahagan, AB0JM   Wildfire Support
Byon Garranrant, N6BG   TinyTrack
Mike Musick, N0QBF   PalmAPRS/Tracker construction
Robert Osband, N4SCY   Public Service with APRS
Tom Schaefer, NY4I   APRS Email Gateway
Darryl Smith, VK2TDS   APRS in the 2000 Olympics
The Sprouls, WU2Z/KB2ICI Mac/Win/XAPRS
Rob Wittner, KZ5RW   APRS-CE

Main Session, Paper Presentation - Saturday 23, 2000
Titles and abstracts are available at
http://www.tapr.org/tapr/html/Fcnc19.html

EasyTrak, A PIC Based Rotor/Radio Controller Interface
By Steve Bible N7HPR

APRS Tiny Web Pages
By Bob Bruninga WB4APR

Channel Capacity Simulation of Peer-to-Peer Spread Spectrum Satellite
Transponders
By Matthew Ettus N2MJI

Correlation for Direct Sequence Spread Spectrum
By Panagiotis Gavalas

PIC-et Radio II: How to Receive AX.25 UI Frames Using Inexpensive PIC
Microcontrollers
By John A. Hansen W2FS

Winlink 2000 ...A Global Ham Message Transfer and Deliver Network
By Hans Kessler N8PGR, Vic Poor W5SMM, Rick Muething KN6KZB, and Steve
Waterman K4CJX

Frequency Offset Acquisition and Tracking Algorithms, Part 1 and Part 2
By Mohamed K. Nezami

External Common Gateway Interface (CGI) Access to FindU
By Thomas M. Schaefer NY4I

Server Applications within APRS Internet Server Environment
By Thomas M. Schaefer NY4I

APRS and the TAPR EasyTrak Az/El Rotor Control System
By Keith Sproul WU2Z

APRS and Kenwood TM-D700 Voice Messaging
By Keith Sproul WU2Z and Mark Sproul KB2ICI

Internet Wide Callsign Database using LDAP
By Mark Sproul KB2ICI

Automatic Voice Relay System
By Bob Bruninga WB4APR

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

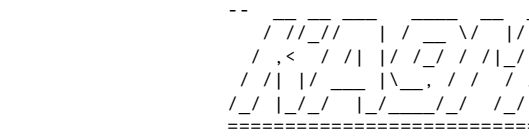
17. [picsig] Re: DCC Update 9/11/2000

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Mon, 11 Sep 2000 11:33:51 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108745-2000.09.11-11.41.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Steven R. Bible" wrote:

> Speakers:
> APRS Seminar - Friday September 22, 2000
> Steve Bragg, KA9MVA   HamHud

Thanks for being nice enough to include me, but I never actually
confirmed this with K4HG, and in fact I will not be attendiing DCC this
year.



```
73,

Steve Bragg KA9MVA

--  __ __ ___   ____  __  ____   _____
   / //_//   | / __ \/  |/  / |  / /   |
  / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |\__, / /  / / | |/ / ___ |
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
=====================================================
Steve Bragg KA9MVA    ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FINDU, FIND ME WITH APRS! http://map.findu.com/ka9mva-9

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

18. [picsig] RE: [dsp] Re: DCC Update 9/11/2000

```
From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 11 Sep 2000 13:28:14 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108752-2000.09.11-12.35.40--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
> >EasyTrak, A PIC Based Rotor/Radio Controller Interface
> >By Steve Bible N7HPR
> >//
> >APRS and the TAPR EasyTrak Az/El Rotor Control System
> >By Keith Sproul WU2Z
>
> Ooo...neat!  Is there anymore information available to the public
> on these
> yet (just read the abstract), or do we have to wait until the
> meeting is over?
>
> Can't wait to hear/read more about these.


Hmmm, let's see... How can I keep the anticipation high?  :-).  You ought to
go to the DCC!

Take a look at http://www.tapr.org/~n7hpr/easytrak/.  The web pages are
still preliminary.  You'll see a special design that I did for Ron Ross,
KE6JAB, that he will take to Antarctica in November of this year.

There will be a complete demo of EasyTrak tracking satellites and tuning
radios, plus a demo of APRS tracking objects (balloons, cars, cats, dogs
:-).

If you can't attend, the DCC proceedings can be purchased from ARRL or TAPR.
If all goes well, conference audio will be posted after the DCC, just as in
past years.

Also, recommend moving the discussion to PICSIG.

- Steve, N7HPR



---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

19. [picsig] RE: Getting started

```
From: tarnerich@in-situ.com (Tony Arnerich)
Date: Mon, 11 Sep 2000 11:50:37 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108758-2000.09.11-12.59.41--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
>Yes, they have fixed that bug a few months back, Steve.  Right after I
>got mine, I wrote to NewFound and he responded that the fix was on their
>web-site.  He attached a copy of the fix to his response and that took
>care of it (if my memory serves me right).  I emailed Tony about it
>later and he got the fix, too.
```

Heh heh... thanks for the reminder, Dale - I have it now. ;-)

The experience with the old version taught me that after programming a PIC,
the best thing to do is to verify it. It's worth the small amount of time.
I'm pretty cautious about it, I'll even reload the hex code into the
computer's memory before doing the verify.

Fortunately I had lost a record of Newfound's URL, which led me to a web
search. It's amazing how many different hits you get from a search for "PIC
programmer". Lots of players nowadays, it seems.

73,
Tony KD7TA

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] warp-13

From: Bill Hosking <William_Hosking-P05328@email.mot.com>
Date: Mon, 11 Sep 2000 11:33:42 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108766-2000.09.11-13.41.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The problem Steve mentioned regarding the 16F876 has been fixed. I
downloaded the newest Warp SW and successfully programmed a HamHud chip.

73
Bill W7JSW

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] Tripmate NMEA question

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Tue, 12 Sep 2000 21:28:11 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-108998-2000.09.12-21.32.52--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm working on some code to use my PIC-E as a GPS
data logger and need some Tripmate altitude info.
Here at about 1200' msl the GPGGA sentence shows
370.4 meters in the altitude area. When one decends, does the
number of digits decrease or will Tripmate add zeros?
Nice to know info when writing a routine to grab that data.
73
Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Re: Tripmate NMEA question

From: Dan Welch <dan@byonics.com>
Date: Tue, 12 Sep 2000 20:58:09 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109012-2000.09.12-23.08.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mike,
        All NMEA data is comma delimited and not padded
so the field length will change. Just count commas.

The Altitude in the GGA sentence is field number 9.

-Dan

At 09:28 PM 9/12/00 -0500, you wrote:
>I'm working on some code to use my PIC-E as a GPS
>data logger and need some Tripmate altitude info.
>Here at about 1200' msl the GPGGA sentence shows
>370.4 meters in the altitude area. When one decends, does the

>number of digits decrease or will Tripmate add zeros?
>Nice to know info when writing a routine to grab that data.
>73
>Mike N0QBH
>
>
>---
>You are currently subscribed to picsig as: dan@byonics.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

73,

Dan Welch - W6DFW

See the GST-1 Converter for Earthmate GPS units at:
 http://www.byonics.com/gst-1

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] RE: FRAM Connections

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Thu, 14 Sep 2000 13:32:12 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109261-2000.09.14-11.39.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi James,

did you get any answers? I'm also interested in this informations.

73 de DK3DUA
Thomas

> -----Original Message-----
> From: bounce-picsig-19325@lists.tapr.org
> [mailto:bounce-picsig-19325@lists.tapr.org]On Behalf Of James A. Martin
> Jr.
> Sent: Tuesday, September 05, 2000 11:25 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] FRAM Connections
>
>
> What is the best way to add a FRAM to a PIC-E?
>
> What PIN's on the PIC do most people use?
>
> Any pictures?
>
> Thanks in advance,
> James M.
> KD5HAD
>
> ---
> You are currently subscribed to picsig as: dk3dua@dk3dua.de
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] RE: FRAM Connections

From: "James A. Martin Jr." <tapr@jmartin.net>
Date: Thu, 14 Sep 2000 11:47:06 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109262-2000.09.14-11.54.39--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Nothing yet. I did find a description of the mod on the TAPR site
 ram_rx.txt) in the software area. It seems pretty simple.

My question now is how to implement the FRAM using the CCS C Compiler?? Can
anybody help?

Thanks,
JM

> -----Original Message-----
> From: bounce-picsig-8571@lists.tapr.org
> [mailto:bounce-picsig-8571@lists.tapr.org]On Behalf Of Thomas Rudolph
> Sent: Thursday, September 14, 2000 7:32 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: FRAM Connections
>
>
> Hi James,
>
> did you get any answers? I'm also interested in this informations.
>
> 73 de DK3DUA
> Thomas
>
>
> > -----Original Message-----
> > From: bounce-picsig-19325@lists.tapr.org
> > [mailto:bounce-picsig-19325@lists.tapr.org]On Behalf Of James A. Martin
> > Jr.
> > Sent: Tuesday, September 05, 2000 11:25 PM
> > To: TAPR PIC Development Special Interest Group
> > Subject: [picsig] FRAM Connections
> >
> >
> > What is the best way to add a FRAM to a PIC-E?
> >
> > What PIN's on the PIC do most people use?
> >
> > Any pictures?
> >
> > Thanks in advance,
> > James M.
> > KD5HAD
> >
> > ---
> > You are currently subscribed to picsig as: dk3dua@dk3dua.de
> > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
> >
>
> ---
> You are currently subscribed to picsig as: tapr@jmartin.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] RE: FRAM Connections

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Thu, 14 Sep 2000 12:03:14 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109265-2000.09.14-12.11.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

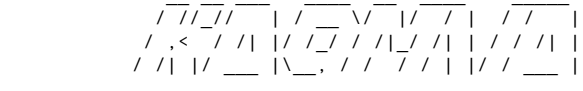
"James A. Martin Jr." wrote:

> My question now is how to implement the FRAM using the CCS C Compiler?? Can
> anybody help?

Dunno about the CCS, but I have routines to read/write the Ramtron
Serial FRAMs in HiTech C, that I wrote for the HamHUD II. They are at
home right now, and I am at work. I can post them to the list later, if
someone cares to see them.

73,

Steve Bragg KA9MVA



```
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
=======================================================
Steve Bragg KA9MVA    ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FIND ME WITH APRS! http://map.findu.com/ka9mva-9

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

26. [picsig] RE: FRAM Connections

From: "James A. Martin Jr." <tapr@jmartin.net>
Date: Thu, 14 Sep 2000 12:15:54 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109268-2000.09.14-12.23.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Steve - could you post them. They may be easily adaptable to the CCS compiler.

Thanks
James M.
KD5HAD

> -----Original Message-----
> From: bounce-picsig-8571@lists.tapr.org
> [mailto:bounce-picsig-8571@lists.tapr.org]On Behalf Of Steve Bragg
> Sent: Thursday, September 14, 2000 12:03 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: FRAM Connections
>
>
> "James A. Martin Jr." wrote:
>
> > My question now is how to implement the FRAM using the CCS C
> Compiler?? Can
> > anybody help?
>
> Dunno about the CCS, but I have routines to read/write the Ramtron
> Serial FRAMs in HiTech C, that I wrote for the HamHUD II. They are at
> home right now, and I am at work. I can post them to the list later, if
> someone cares to see them.
>
> 73,
>
> Steve Bragg KA9MVA
>
> ```
> --- __ __ ___   _____ __  ____    _____
>    / //_//   | / __ \/  |/  / |  / /   |
>   / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
>  / /| |/ ___ |__, / /  / / | |/ / ___ |
> /_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
> =======================================================
> Steve Bragg KA9MVA    ka9mva@qsl.net   ICQ:29816109
> HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
> Owasso, Oklahoma, USA
> Owasso Amateur Radio Club www.qsl.net/oarc
> FIND ME WITH APRS! http://map.findu.com/ka9mva-9
> ```
>
> ---
> You are currently subscribed to picsig as: tapr@jmartin.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

```
---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

27. [picsig] RE: FRAM Connections

From: Henry Carl Ott <carlott@interport.net>
Date: Thu, 14 Sep 2000 14:34:41 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109275-2000.09.14-13.43.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi folks,
  Does anyone have a source/distributor for small quantities of the Ramtron
FRAM parts in the US?
  I'd like to switch out the small I2c ram chip in my atmel tnc project but
I'm having trouble tracking down some FRAM parts to experiment with.

Thanks in advance.

carl

Henry Carl Ott   N2RVQ   carlott@rcn.com
http://users.rcn.com/carlott/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] RE: FRAM Connections

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Thu, 14 Sep 2000 14:11:33 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109277-2000.09.14-14.19.36--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"James A. Martin Jr." wrote:
>
> Thanks Steve - could you post them. They may be easily adaptable to the CCS
> compiler.

OK will do tonight.

73,

Steve
--- __ __ ___   _____ __ ____   _____
   / //_// | / __ \/ |/ / | / / |
  / ,< / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |__, / / / / | |/ / ___ |
/_/ |_/_/ |_/____/_/ /_/ |___/_/ |_|
==
Steve Bragg KA9MVA   ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FIND ME WITH APRS! http://map.findu.com/ka9mva-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] RE: FRAM Connections <LYR19805-109275-2000.09.14-13.43.28--ssbrockw#swbell.net@lists.tapr.org>

From: Steve Brockway <ssbrockw@swbell.net>
Date: Thu, 14 Sep 2000 21:41:28 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109320-2000.09.14-21.51.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Carl,

I checked the Ramtron website and put in a request for samples for another
project that I was about to work on. They sent them out to the local rep
firm and he would have forwarded them to me, but, alas, the project did not
pan out so I informed them that I didn't need them any more. They seemed
willing to work with me on this and said that if I needed further assistance
to let them know.

You might try the same thing on their website at http://www.ramtron.com/

73,
Steve
KA5YFC

Henry Carl Ott wrote:

>   Hi folks,
>   Does anyone have a source/distributor for small quantities of
> the Ramtron
> FRAM parts in the US?
>   I'd like to switch out the small I2c ram chip in my atmel tnc
> project but
> I'm having trouble tracking down some FRAM parts to experiment with.
>
> Thanks in advance.
>
> carl

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] FRAM connections and C Code

From: James Jefferson <jjeffers@deskmedia.com>
Date: Fri, 15 Sep 2000 07:42:07 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109417-2000.09.15-07.40.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Take a look at:
http://www.deskmedia.com/~jjeffers/packet/pic/

You can actually use the 2416 EEPROM library unmodified, or you just need
to take out a couple of delay_ms statements (the FRAM doesn't need any
write time) ... I hope you are using the same chip as me ... otherwise you
can ignore all of this :-)

-James Jefferson KB0THN

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

31. [picsig] RE: FRAM Connections

From: Henry Carl Ott <carlott@rcn.com>
Date: Fri, 15 Sep 2000 14:56:40 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109495-2000.09.15-14.05.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks,
   If I can't just order in the parts I'll contact Ramtron about getting
some samples. If I publish a design I'd like to be able to point people to
a easily accessible source of the necessary parts.

  I just noticed that Ramtron lists FutureActive as a distributor. They
list Ramtron parts in their web site, but there is a little confusion
because they seem to equating them with similar EEPROM devices. Future has
substituted manufactures on me in the past. I'll contact them directly to
make sure that they will ship the Ramtron parts and not a substitute.

  I'll post my results.

At 09:41 PM 9/14/2000, you wrote:
>Carl,
>
>I checked the Ramtron website and put in a request for samples for another
>project that I was about to work on. They sent them out to the local rep
>firm and he would have forwarded them to me, but, alas, the project did not
>pan out so I informed them that I didn't need them any more. They seemed
>willing to work with me on this and said that if I needed further assistance
>to let them know.
>
>You might try the same thing on their website at http://www.ramtron.com/
>
>73,
>Steve
>KA5YFC

carl

Henry Carl Ott   N2RVQ   carlott@rcn.com
http://users.rcn.com/carlott/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

32. [picsig] FRAM mod

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Sun, 17 Sep 2000 12:28:31 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109807-2000.09.17-12.32.20--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Sorry it took me so long, but here's some info that should help...

        PIC-E 2k serial FRAM modification

I've modified two of my PIC-E units to include a Ramtron
25160 2k serial FRAM IC, yet retain their ability to run all of
the original programs.
To do this, I mounted the 8 pin FRAM IC on a daughterboard a bit
larger than a stamp and used a 6 pin R/A disconnect header to
tie it in to the PIC-E pcb. Five of the 6 pins on the connector
are used, they include: +5v, Ground, RAM chip select, RAM clock
and RAM data in / out on a common line.
The PIC-E pcb is viewed from the front (LED end)

FRAM pin		GOES TO:
8	Vcc	PIC-E Via hole on wide, vertical trace, right side of C4. 5v reg.
7	$\overline{\text{HOLD}}$	Tied to FRAM Vcc on daughterboard
6	SCK	PIC-E R6 lower lead (ties to B:6)
5	SI	PIC-E R2 upper lead (common w/SO)*
4	GND	PIC-E D2 right lead (PIC-E ground)
3	$\overline{\text{WP}}$	Tied to FRAM Vcc on daughterboard
2	SO	PIC-E R2 upper lead (ties to A:0)*
1	$\overline{\text{CS}}$	PIC-E R4 lower lead (ties to B:7)

* Pins 2 & 5 on the daughterboard are tied together (SO/SI)
then with a single wire, tied to (R2 upper lead) A:0.
Vcc and ground can be taken from other places on the PIC-E,
try stay close to the regulator IC to minimumize noise.
I also included a .1 uF bypass cap on the ram pcb between Vcc
and ground.
>>>   Programming is done with the ram pcb disconnected!

To make use of this new hardware, I have wrote some
programs which can assembled and programmed
into the modified PIC-E.
They include DIGI_7.ASM and RAM_RX.ASM.
As a precaution, be sure to unplug the ram board
from it's connector while programming. This is because the
FRAM shares 2 of the lines used to program the PIC-E and we don't
want to put programming voltage to the FRAM IC.
Afterwards, plug in the FRAM pcb and check the following jumpers.

 JP 1 OFF
             JP 2   "N" (on 1&2)
 JP 3 ON
 JP 4 ON (off to prgm)
             JP 5   RXD (on 1&2)

Connect the RJ45 jumper from the PIC-E to the radio as usual.
* Audio from the mic connector must be squelched *
Volume should be set low but audible.
To use the PIC-E with original software, unplug and remove the
FRAM daughterboard, configure jumpers and program as usual.

73's Mike Berg N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

33. [picsig] Final Update - DCC Orlando, FL Sep 22-24, 2000

From: "Steven R. Bible" <srbible@gate.net>
Date: Mon, 18 Sep 2000 12:33:39 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-109957-2000.09.18-11.47.32--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

19th Annual ARRL/TAPR Digital Communications Conference
Orlando, FL September 22-24, 2000

** Final Update 9/18/2000 **

Counting down the final days until the 19th Annual ARRL/TAPR Digital
Communications Conference this weekend in Orlando, Florida. For detailed
information about the conference, please visit the official DCC web page at
http:www.tapr.org/dcc.

Registration for the conference will be taken at the door. Friday
registration is for an entire afternoon APRS activities, demonstrations, and
presentations. Saturday registration includes conference proceedings,
lunch, and a full day of presentations. Saturday night includes Banquet,
dinner speaker, and prize drawing. Sunday registration is for the PICmicro
Design seminar.

DCC Social:
Please join us Friday evening at 7:00 PM for a social get together time.
The social is generously hosted by the Packet Radio Users Group of Japan
(PRUG).

PRUG Presentation:
Friday night the Packet Radio Users Group of Japan will present talks on
their progress on high-speed digital networks in Japan.

Saturday Night Banquet Speaker:
Mr. Doug Campbell, of Triton Network Systems (http://www.triton-network.com)
will be our DCC Banquet Speaker. Triton Network Systems is located in
Orlando, Florida.

Vice President Product Management, Marketing, & International Business as
Vice President of International Sales, Marketing and Product Management, Mr.
Campbell leads the assessment of global community needs and spearheads the
development of Triton Network Systems' product and marketing strategies.

Mr. Campbell cultivated his management skills in sales, marketing and
product development working 17 years for Nortel Networks. While based in
Singapore, he built a multifunctional pan-Asian team, which successfully
captured a 100% market share with MCI-WorldCom Asia, successfully
introducing a number of new products. Prior to this, Mr. Campbell was
instrumental in the establishment of an SDH broadband equipment joint
venture in China and served as a member of the company's Board of Directors.

Mr. Campbell received a Bachelor of Engineering Physics degree from the
Royal Military College of Canada in Kingston, Canada, and a Master of
Business Administration from IMD (University of Lausanne) in Switzerland.

Banquet Prize Drawings:
Grand Prize Kenwood TM-D700A (donated by Kenwood)
2nd Grand Prize Palm VII Personal Digital Assistant (donated by TAPR)
Two Motorola Oncore M12 GPS Evaluation Kits (donated by Synergy Systems,
LLC)
Microchip PICSTART-PLUS PICmicro Programmer (donated by Microchip)

PIC Seminar Prize Drawing
Microchip MPLAB-ICD (donated by Microchip)

Project and Demonstration Room:
The DCC is a place where people can talk about their projects and gain ideas
for new ones. The Project and Demonstration Room has become a recent DCC
tradition where people can bring and display their projects. The room will
be located next to the registration room and across the hall from the main

presentation room. The Project and Demonstration Room will open at
registration time and be closed (locked) 11:00 PM Friday and Saturday night.

Map and coordinates:
A map of the conference hotel and coordinates are available at
ftp://ftp.tapr.org/dcc/2000.dcc.hotel.map.pdf

Speakers:
The following is a list of presenters. PDF version available from
ftp://ftp.tapr.org/dcc/2000.dcc.speakers.pdf

Speaking schedule (subject to change) is available from
ftp://ftp.tapr.org/dcc/2000.dcc.schedule.pdf

APRS Seminar - Friday September 22, 2000

John Ackerman, N9UR	APRS WG
Steve Bible, N7HPR	T-238 Weather Station
John Blowsky, KB2SCS	APRS LOOKUP
Bob Bruninga, WB4APR	APRSdos, satellite, etc.
Steve Dimse, K4HG	Internet APRS
Walter Dunckel, KD6VYV	Serial Control of D7/D700
John Hansen, W2FS	KISS TNC, D700 Keyboard
Dale Huguley, KG5QD	Weather Server
Larry Gahagan, AB0JM	Wildfire Support
Byon Garranrant, N6BG	TinyTrack
Mike Musick, N0QBF	PalmAPRS/Tracker construction
Robert Osband, N4SCY	Public Service with APRS
Tom Schaefer, NY4I	APRS Email Gateway
Darryl Smith, VK2TDS	APRS in the 2000 Olympics
The Sprouls, WU2Z/KB2ICI	Mac/Win/XAPRS
Rob Wittner, KZ5RW	APRS-CE

Main Session, Paper Presentation - Saturday 23, 2000
Titles and abstracts are available at
http://www.tapr.org/tapr/html/Fcnc19.html

EasyTrak, A PIC Based Rotor/Radio Controller Interface
By Steve Bible N7HPR

APRS Tiny Web Pages
By Bob Bruninga WB4APR

Channel Capacity Simulation of Peer-to-Peer Spread Spectrum Satellite
Transponders
By Matthew Ettus N2MJI

Correlation for Direct Sequence Spread Spectrum
By Panagiotis Gavalas

PIC-et Radio II: How to Receive AX.25 UI Frames Using Inexpensive PIC
Microcontrollers
By John A. Hansen W2FS

Winlink 2000 ...A Global Ham Message Transfer and Deliver Network
By Hans Kessler N8PGR, Vic Poor W5SMM, Rick Muething KN6KZB, and Steve
Waterman K4CJX

Frequency Offset Acquisition and Tracking Algorithms, Part 1 and Part 2
By Mohamed K. Nezami

APRS and the TAPR EasyTrak Az/El Rotor Control System
By Keith Sproul WU2Z

APRS and Kenwood TM-D700 Voice Messaging
By Keith Sproul WU2Z and Mark Sproul KB2ICI

Internet Wide Callsign Database using LDAP
By Mark Sproul KB2ICI

Automatic Voice Relay System
By Bob Bruninga WB4APR

Introductory Sessions - Saturday 23, 2000

Intro to Packet Radio
By John Ackerman, N8UR

Intro to APRS

By Guy Story, KC5QOI

Intro to Digital Satellites
By Barry Baines, WD4ASW

Into to HF Digital
TBD

Intro to Software Defined Radios
By Steve Bible, N7HPR

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

34. [picsig] APRSPEED and PICE

From: David Voges <DVoges@Interalia.ca>
Date: Thu, 21 Sep 2000 11:15:03 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110472-2000.09.21-12.21.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've just started using the PIC-E product and have problems getting the
right coordinates on APRS when using APRSPEED. For some reason -114
degrees is sent as 14 degrees.

Anyone know what is going on ?

Thanks
Dave

35. [picsig] RE: APRSPEED and PICE

From: "Robert Donnell" <kd7nm@pugetsound.net>
Date: Thu, 21 Sep 2000 10:45:55 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110475-2000.09.21-12.50.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

APRSPEED and PICEHi Dave

This sounds like a receiving TNC problem - the default settings on many TNCs
'swallow' non-printable characters, and the area of longitude you're dealing
with is encoded in that range. What TNC are you using to monitor your
PIC-E?

73, Bob

-----Original Message-----
From: bounce-picsig-17770@lists.tapr.org
[mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
Sent: Thursday, September 21, 2000 10:15 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] APRSPEED and PICE

I've just started using the PIC-E product and have problems getting the
right coordinates on APRS when using APRSPEED. For some reason -114
degrees is sent as 14 degrees.

Anyone know what is going on ?

Thanks
Dave

36. [picsig] RE: APRSPEED and PICE

From: David Voges <DVoges@Interalia.ca>
Date: Thu, 21 Sep 2000 11:59:02 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110476-2000.09.21-13.05.17--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Bob

Thanks for the quick response. I'm looking at it via winaprs connected to
the internet.

The longitude in question here is 114deg 14' 01" and this shows up as
14deg 14' 01"

  -----Original Message-----
From: Robert Donnell [mailto:kd7nm@pugetsound.net]
Sent: September 21, 2000 11:46 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Hi Dave

This sounds like a receiving TNC problem - the default settings on many TNCs
'swallow' non-printable characters, and the area of longitude you're dealing
with is encoded in that range. What TNC are you using to monitor your
PIC-E?

73, Bob

-----Original Message-----
From: bounce-picsig-17770@lists.tapr.org
[mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
Sent: Thursday, September 21, 2000 10:15 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] APRSPEED and PICE

I've just started using the PIC-E product and have problems getting the
right coordinates on APRS when using APRSPEED. For some reason -114
degrees is sent as 14 degrees.

Anyone know what is going on ?

Thanks
Dave

37. [picsig] RE: APRSPEED and PICE

From: "Robert Donnell" <kd7nm@pugetsound.net>
Date: Thu, 21 Sep 2000 11:16:02 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110477-2000.09.21-13.20.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

APRSPEED and PICEHi Dave,

Are there any other stations in your area using a Mic-E, PIC-E, TinyTrack,
Kenwood TH-D7, or TM-D700 and getting proper reports on the internet? The
internet gateway's TNC may be what's not set correctly. We've seen this
with at least one Igate operating in the Pacific Northwest, with the same
result - these compressed position reports get damaged and show local
(greater Seattle) users in the Atlantic. I'd suggest that you try to find
someone who can monitor your station via RF.

73, Bob
-----Original Message-----
From: bounce-picsig-17770@lists.tapr.org
[mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
Sent: Thursday, September 21, 2000 10:59 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Hi Bob

Thanks for the quick response. I'm looking at it via winaprs connected to
the internet.
The longitude in question here is 114deg 14' 01" and this shows up as
14deg 14' 01"

38. [picsig] RE: APRSPEED and PICE

From: David Voges <DVoges@Interalia.ca>
Date: Thu, 21 Sep 2000 12:58:33 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110479-2000.09.21-14.07.22--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Yes, there are numerous stations using MIC-E and TH-D7's so I'm pretty confident that the
gateway is set up correctly. The best is probably to use a TNC and second radio and monitor the
packets. I actually did that last night, but never looked at the actual information sent.

Thanks for the help.

73'

-----Original Message-----
From: Robert Donnell [mailto:kd7nm@pugetsound.net]
Sent: September 21, 2000 12:16 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Hi Dave,

Are there any other stations in your area using a Mic-E, PIC-E, TinyTrack, Kenwood TH-D7, or TM-D700 and getting proper reports on the internet? The internet gateway's TNC may be what's not set correctly. We've seen this with at least one Igate operating in the Pacific Northwest, with the same result - these compressed position reports get damaged and show local (greater Seattle) users in the Atlantic. I'd suggest that you try to find someone who can monitor your station via RF.

73, Bob
-----Original Message-----
From: bounce-picsig-17770@lists.tapr.org
[mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
Sent: Thursday, September 21, 2000 10:59 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Hi Bob

Thanks for the quick response. I'm looking at it via winaprs connected to the internet.
The longitude in question here is 114deg 14' 01" and this shows up as 14deg 14' 01"

39. [picsig] RE: APRSPEED and PICE

From: "Byon Garrabrant" <byon@mail.com>
Date: Thu, 21 Sep 2000 17:56:00 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110520-2000.09.21-20.04.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 21 Sep 00, at 11:59, David Voges wrote:

> Thanks for the quick response. I'm looking at it via winaprs connected to
> the internet. The longitude in question here is 114deg 14' 01" and this
> shows up as 14deg 14' 01"

I noticed a problem with WinAPRS 2.46 a while back that even a
direct RF link (no digi or internet, Tracker to TNC to PC), WinAPRS
droped the 100s digit from the longitude. I heard reports it also did
it on 2.47. Version 2.45 worked fine. Could be related.

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

40. [picsig] Re: picsig digest: September 21, 2000

From: "Marcelo Puhl" <mark@plug-in.com.br>
Date: Fri, 22 Sep 2000 08:17:46 -0300
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110574-2000.09.22-06.26.24--lyris.picsig#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Hi,

Please turn off your HTML setting.

See below how your messages came thru in the digest format :

> TAPR PIC Development Special Interest Group Digest for Thursday, September 21,
> 2000.
>
> 1. APRSPEED and PICE
> 2. RE: APRSPEED and PICE
> 3. RE: APRSPEED and PICE
> 4. RE: APRSPEED and PICE
> 5. RE: APRSPEED and PICE
> 6. RE: APRSPEED and PICE
>
> --
>
> Subject: APRSPEED and PICE
> From: David Voges <DVoges@Interalia.ca>
> Date: Thu, 21 Sep 2000 11:15:03 -0600
> X-Message-Number: 1
>
> This message is in MIME format. Since your mail reader does not understand
> this format, some or all of this message may not be legible.
>
> ------_=_NextPart_001_01C023EF.7B16DA28
> Content-Type: text/plain;
> charset="iso-8859-1"
>
> I've just started using the PIC-E product and have problems getting the
> right coordinates on APRS when using APRSPEED. For some reason -114
> degrees is sent as 14 degrees.
>
> Anyone know what is going on ?
>
> Thanks
> Dave
>
> ------_=_NextPart_001_01C023EF.7B16DA28
> Content-Type: text/html;
> charset="iso-8859-1"
>
> <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2//EN">
> <HTML>
> <HEAD>
> <META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
> <META NAME="Generator" CONTENT="MS Exchange Server version 5.5.2650.12">
> <TITLE>APRSPEED and PICE</TITLE>
> </HEAD>
> <BODY>
>
> <P><FONT SIZE=2>I've just started using the PIC-E product and have problems
> getting the </FONT>
<FONT SIZE=2>right coordinates on APRS when using
> APRSPEED. For some reason -114 </FONT>
<FONT SIZE=2>degrees is sent as
> 14 degrees. </FONT> </P>
>
> <P><FONT SIZE=2>Anyone know what is going on ?</FONT>
> </P>
>
> <P><FONT SIZE=2>Thanks</FONT>
>
<FONT SIZE=2>Dave</FONT>
> </P>
>
> </BODY>
> </HTML>
> ------_=_NextPart_001_01C023EF.7B16DA28--
>
> --
>
> Subject: RE: APRSPEED and PICE
> From: "Robert Donnell" <kd7nm@pugetsound.net>
> Date: Thu, 21 Sep 2000 10:45:55 -0700
> X-Message-Number: 2
>
> This is a multi-part message in MIME format.
>

> ------=_NextPart_000_0004_01C023B9.1F314B20
> Content-Type: text/plain;
> charset="iso-8859-1"
> Content-Transfer-Encoding: 7bit
>
> APRSPEED and PICEHi Dave
>
> This sounds like a receiving TNC problem - the default settings on many TNCs
> 'swallow' non-printable characters, and the area of longitude you're dealing
> with is encoded in that range. What TNC are you using to monitor your PIC-E?
>
> 73, Bob
>
> -----Original Message-----
> From: bounce-picsig-17770@lists.tapr.org
> [mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
> Sent: Thursday, September 21, 2000 10:15 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] APRSPEED and PICE
>
>
> I've just started using the PIC-E product and have problems getting the
> right coordinates on APRS when using APRSPEED. For some reason -114
> degrees is sent as 14 degrees.
>
> Anyone know what is going on ?
>
> Thanks
> Dave
>
>
> ------=_NextPart_000_0004_01C023B9.1F314B20
> Content-Type: text/html;
> charset="iso-8859-1"
> Content-Transfer-Encoding: quoted-printable
>
> <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
> <HTML><HEAD>
> <META HTTP-EQUIV=3D"Content-Type" CONTENT=3D"text/html; =
> charset=3Diso-8859-1">
> <TITLE>APRSPEED and PICE</TITLE>
>
> <META content=3D"MSHTML 5.50.4134.600" name=3DGENERATOR></HEAD>
> <BODY>
> <DIV><SPAN class=3D265024417-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>Hi=20
> Dave</FONT></SPAN></DIV>
> <DIV><SPAN class=3D265024417-21092000><FONT face=3DArial color=3D#0000ff =
>
> size=3D2></FONT></SPAN> </DIV>
> <DIV><SPAN class=3D265024417-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>This=20
> sounds like a receiving TNC problem - the default settings on many TNCs=20
> 'swallow' non-printable characters, and the area of longitude you're =
> dealing=20
> with is encoded in that range. What TNC are you using to monitor =
> your=20
> PIC-E?</FONT></SPAN></DIV>
> <DIV><SPAN class=3D265024417-21092000><FONT face=3DArial color=3D#0000ff =
>
> size=3D2></FONT></SPAN> </DIV>
> <DIV><SPAN class=3D265024417-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>73,=20
> Bob</FONT></SPAN></DIV>
> <DIV><SPAN class=3D265024417-21092000></SPAN> </DIV>
> <DIV class=3DOutlookMessageHeader dir=3Dltr align=3Dleft><FONT =
> face=3DTahoma=20
> size=3D2>-----Original Message-----
<B>From:</B>=20
> bounce-picsig-17770@lists.tapr.org=20
> [mailto:bounce-picsig-17770@lists.tapr.org]<B>On Behalf Of </B>David=20
> Voges
<B>Sent:</B> Thursday, September 21, 2000 10:15 =
> AM
<B>To:</B> TAPR=20
> PIC Development Special Interest Group
<B>Subject:</B> [picsig] =
> APRSPEED and=20
> PICE

</FONT></DIV>
> <P><FONT size=3D2>I've just started using the PIC-E product and have =
> problems=20
> getting the </FONT>
<FONT size=3D2>right coordinates on APRS when =
> using=20

> APRSPEED. For some reason -114 </FONT>
<FONT size=3D2>degrees =
> is sent as=20
> 14 degrees. </FONT></P>
> <P><FONT size=3D2>Anyone know what is going on ?</FONT> </P>
> <P><FONT size=3D2>Thanks</FONT>
<FONT size=3D2>Dave</FONT> =
> </P></BODY></HTML>
>
> ------=_NextPart_000_0004_01C023B9.1F314B20--
>
>
> ---
>
> Subject: RE: APRSPEED and PICE
> From: David Voges <DVoges@Interalia.ca>
> Date: Thu, 21 Sep 2000 11:59:02 -0600
> X-Message-Number: 3
>
> This message is in MIME format. Since your mail reader does not understand
> this format, some or all of this message may not be legible.
>
> ------_=_NextPart_001_01C023F5.9FD51338
> Content-Type: text/plain;
> charset="iso-8859-1"
>
> Hi Bob
>
> Thanks for the quick response. I'm looking at it via winaprs connected to
> the internet.
> The longitude in question here is 114deg 14' 01" and this shows up as
> 14deg 14' 01"
>
>
>
>   -----Original Message-----
> From: Robert Donnell [mailto:kd7nm@pugetsound.net]
> Sent: September 21, 2000 11:46 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: APRSPEED and PICE
>
>
>
> Hi Dave
>
> This sounds like a receiving TNC problem - the default settings on many TNCs
> 'swallow' non-printable characters, and the area of longitude you're dealing
> with is encoded in that range. What TNC are you using to monitor your PIC-E?
>
> 73, Bob
>
> -----Original Message-----
> From: bounce-picsig-17770@lists.tapr.org
> [mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
> Sent: Thursday, September 21, 2000 10:15 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] APRSPEED and PICE
>
>
>
> I've just started using the PIC-E product and have problems getting the
> right coordinates on APRS when using APRSPEED. For some reason -114
> degrees is sent as 14 degrees.
>
> Anyone know what is going on ?
>
> Thanks
> Dave
>
>
> ------_=_NextPart_001_01C023F5.9FD51338
> Content-Type: text/html;
> charset="iso-8859-1"
>
> <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
> <HTML><HEAD>
> <META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
> <TITLE>APRSPEED and PICE</TITLE>
>
> <META content="MSHTML 5.50.4207.2601" name=GENERATOR></HEAD>
> <BODY>

> <DIV><SPAN class=620485417-21092000><FONT face=Arial color=#0000ff size=2>Hi
> Bob</FONT></SPAN></DIV> <DIV><SPAN class=620485417-21092000><FONT face=Arial
> color=#0000ff size=2></FONT></SPAN> </DIV> <DIV><SPAN
> class=620485417-21092000><FONT face=Arial color=#0000ff size=2>Thanks for the
> quick response. I'm looking at it via winaprs connected to the
> internet. </FONT></SPAN></DIV> <DIV><SPAN class=620485417-21092000><FONT
> face=Arial color=#0000ff size=2>The longitude in question here is 114deg
> 14' 01" and this shows up as 14deg 14' 01"</FONT></SPAN></DIV>
> <DIV><SPAN class=620485417-21092000><FONT face=Arial color=#0000ff
> size=2></FONT></SPAN> </DIV> <DIV><SPAN
> class=620485417-21092000></SPAN> </DIV> <DIV><SPAN
> class=620485417-21092000></SPAN><FONT face=Tahoma><FONT face=Arial color=#0000ff
> size=2></FONT><FONT face=Arial color=#0000ff size=2></FONT><FONT face=Arial
> color=#0000ff size=2></FONT>
<FONT size=2><SPAN
> class=620485417-21092000><FONT face=Arial
> color=#0000ff> </FONT></SPAN>-----Original
> Message-----
<B>From:</B> Robert Donnell
> [mailto:kd7nm@pugetsound.net]
<B>Sent:</B> September 21, 2000 11:46
> AM
<B>To:</B> TAPR PIC Development Special Interest Group
<B>Subject:</B>
> [picsig] RE: APRSPEED and PICE

</FONT></DIV></FONT> <BLOCKQUOTE dir=ltr
> style="MARGIN-RIGHT: 0px">
>   <DIV><SPAN class=265024417-21092000><FONT face=Arial color=#0000ff size=2>Hi
>   Dave</FONT></SPAN></DIV> <DIV><SPAN class=265024417-21092000><FONT face=Arial
>   color=#0000ff size=2></FONT></SPAN> </DIV> <DIV><SPAN
>   class=265024417-21092000><FONT face=Arial color=#0000ff size=2>This sounds
>   like a receiving TNC problem - the default settings on many TNCs 'swallow'
>   non-printable characters, and the area of longitude you're dealing with is
>   encoded in that range. What TNC are you using to monitor your
>   PIC-E?</FONT></SPAN></DIV> <DIV><SPAN class=265024417-21092000><FONT
>   face=Arial color=#0000ff size=2></FONT></SPAN> </DIV> <DIV><SPAN
>   class=265024417-21092000><FONT face=Arial color=#0000ff size=2>73,
>   Bob</FONT></SPAN></DIV> <DIV><SPAN
>   class=265024417-21092000></SPAN> </DIV> <DIV class=OutlookMessageHeader
>   dir=ltr align=left><FONT face=Tahoma size=2>-----Original
>   Message-----
<B>From:</B> bounce-picsig-17770@lists.tapr.org
>   [mailto:bounce-picsig-17770@lists.tapr.org]<B>On Behalf Of </B>David
>   Voges
<B>Sent:</B> Thursday, September 21, 2000 10:15 AM
<B>To:</B> TAPR
>   PIC Development Special Interest Group
<B>Subject:</B> [picsig] APRSPEED
>   and PICE

</FONT></DIV> <P><FONT size=2>I've just started using the
>   PIC-E product and have problems getting the </FONT>
<FONT size=2>right
>   coordinates on APRS when using APRSPEED. For some reason -114
>   </FONT>
<FONT size=2>degrees is sent as 14 degrees. </FONT></P>
>   <P><FONT size=2>Anyone know what is going on ?</FONT> </P> <P><FONT
>   size=2>Thanks</FONT>
<FONT size=2>Dave</FONT>
> </P></BLOCKQUOTE></BODY></HTML>
>
> ------_=_NextPart_001_01C023F5.9FD51338--
>
> --
>
> Subject: RE: APRSPEED and PICE
> From: "Robert Donnell" <kd7nm@pugetsound.net>
> Date: Thu, 21 Sep 2000 11:16:02 -0700
> X-Message-Number: 4
>
> This is a multi-part message in MIME format.
>
> ------=_NextPart_000_000D_01C023BD.54503E70
> Content-Type: text/plain;
> charset="iso-8859-1"
> Content-Transfer-Encoding: 7bit
>
> APRSPEED and PICEHi Dave,
>
> Are there any other stations in your area using a Mic-E, PIC-E, TinyTrack,
> Kenwood TH-D7, or TM-D700 and getting proper reports on the internet? The
> internet gateway's TNC may be what's not set correctly. We've seen this
> with at least one Igate operating in the Pacific Northwest, with the same
> result - these compressed position reports get damaged and show local
> (greater Seattle) users in the Atlantic. I'd suggest that you try to find
> someone who can monitor your station via RF.
>
> 73, Bob
> -----Original Message-----
> From: bounce-picsig-17770@lists.tapr.org
> [mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
> Sent: Thursday, September 21, 2000 10:59 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: APRSPEED and PICE

```
>
>
> Hi Bob
>
> Thanks for the quick response.  I'm looking at it via winaprs connected to
> the internet.
> The longitude in question here is 114deg 14'  01"  and this shows up as
> 14deg 14' 01"
>
>
>
>
>
> ------=_NextPart_000_000D_01C023BD.54503E70
> Content-Type: text/html;
>  charset="iso-8859-1"
> Content-Transfer-Encoding: quoted-printable
>
> <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
> <HTML><HEAD>
> <META HTTP-EQUIV=3D"Content-Type" CONTENT=3D"text/html; =
> charset=3Diso-8859-1">
> <TITLE>APRSPEED and PICE</TITLE>
>
> <META content=3D"MSHTML 5.50.4134.600" name=3DGENERATOR></HEAD>
> <BODY>
> <DIV><SPAN class=3D046510918-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>Hi=20
> Dave,</FONT></SPAN></DIV>
> <DIV><SPAN class=3D046510918-21092000><FONT face=3DArial color=3D#0000ff =
>
> size=3D2></FONT></SPAN> </DIV>
> <DIV><SPAN class=3D046510918-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>Are=20
> there any other stations in your area using a Mic-E, PIC-E, TinyTrack, =
> Kenwood=20
> TH-D7, or TM-D700 and getting proper reports on the internet?  =
> The=20
> internet gateway's TNC may be what's not set correctly.  We've seen =
> this=20
> with at least one Igate operating in the Pacific Northwest, with the =
> same result=20
> - these compressed position reports get damaged and show local (greater =
> Seattle)=20
> users in the Atlantic.  I'd suggest that you try to find someone =
> who can=20
> monitor your station via RF.  </FONT></SPAN></DIV>
> <DIV><SPAN class=3D046510918-21092000><FONT face=3DArial color=3D#0000ff =
>
> size=3D2></FONT></SPAN> </DIV>
> <DIV><SPAN class=3D046510918-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>73,=20
> Bob</FONT></SPAN></DIV>
> <DIV class=3DOutlookMessageHeader dir=3Dltr align=3Dleft><FONT =
> face=3DTahoma=20
> size=3D2>-----Original Message-----<BR><B>From:</B>=20
> bounce-picsig-17770@lists.tapr.org=20
> [mailto:bounce-picsig-17770@lists.tapr.org]<B>On Behalf Of </B>David=20
> Voges<BR><B>Sent:</B> Thursday, September 21, 2000 10:59 =
> AM<BR><B>To:</B> TAPR=20
> PIC Development Special Interest Group<BR><B>Subject:</B> [picsig] RE: =
> APRSPEED=20
> and PICE<BR><BR></FONT></DIV>
> <DIV><SPAN class=3D620485417-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>Hi=20
> Bob</FONT></SPAN></DIV>
> <DIV><SPAN class=3D620485417-21092000><FONT face=3DArial color=3D#0000ff =
>
> size=3D2></FONT></SPAN> </DIV>
> <DIV><SPAN class=3D620485417-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>Thanks=20
> for the quick response.  I'm looking at it via winaprs connected to =
> the=20
> internet.  </FONT></SPAN></DIV>
> <DIV><SPAN class=3D620485417-21092000><FONT face=3DArial color=3D#0000ff =
> size=3D2>The=20
> longitude in question here is 114deg 14'  01"  and this shows =
> up as=20
> 14deg 14' 01"</FONT></SPAN></DIV>
```

> <DIV><SPAN class=3D620485417-21092000><FONT face=3DArial color=3D#0000ff =
>
> size=3D2></FONT></SPAN> </DIV>
> <DIV><SPAN class=3D620485417-21092000></SPAN> </DIV>
> <DIV><SPAN class=3D620485417-21092000></SPAN><FONT face=3DTahoma><FONT =
> face=3DArial=20
> color=3D#0000ff size=3D2></FONT><FONT face=3DArial color=3D#0000ff =
> size=3D2></FONT><FONT=20
> face=3DArial color=3D#0000ff =
> size=3D2></FONT>
</DIV></FONT></BODY></HTML>
>
> ------=_NextPart_000_000D_01C023BD.54503E70--
>
>
> ---
>
> Subject: RE: APRSPEED and PICE
> From: David Voges <DVoges@Interalia.ca>
> Date: Thu, 21 Sep 2000 12:58:33 -0600
> X-Message-Number: 5
>
> This message is in MIME format. Since your mail reader does not understand
> this format, some or all of this message may not be legible.
>
> ------_=_NextPart_001_01C023FD.F0E1DE2A
> Content-Type: text/plain;
> charset="iso-8859-1"
>
> Yes, there are numerous stations using MIC-E and TH-D7's so I'm pretty
> confident that the
> gateway is set up correctly. The best is probably to use a TNC and second
> radio and monitor the
> packets. I actually did that last night, but never looked at the actual
> information sent.
>
> Thanks for the help.
>
> 73'
>
> -----Original Message-----
> From: Robert Donnell [mailto:kd7nm@pugetsound.net]
> Sent: September 21, 2000 12:16 PM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: APRSPEED and PICE
>
>
> Hi Dave,
>
> Are there any other stations in your area using a Mic-E, PIC-E, TinyTrack,
> Kenwood TH-D7, or TM-D700 and getting proper reports on the internet? The
> internet gateway's TNC may be what's not set correctly. We've seen this
> with at least one Igate operating in the Pacific Northwest, with the same
> result - these compressed position reports get damaged and show local
> (greater Seattle) users in the Atlantic. I'd suggest that you try to find
> someone who can monitor your station via RF.
>
> 73, Bob
> -----Original Message-----
> From: bounce-picsig-17770@lists.tapr.org
> [mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
> Sent: Thursday, September 21, 2000 10:59 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] RE: APRSPEED and PICE
>
>
> Hi Bob
>
> Thanks for the quick response. I'm looking at it via winaprs connected to
> the internet.
> The longitude in question here is 114deg 14' 01" and this shows up as
> 14deg 14' 01"
>
>
>
>
>
>
> ------_=_NextPart_001_01C023FD.F0E1DE2A
> Content-Type: text/html;

```
>  charset="iso-8859-1"
>
> <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
> <HTML><HEAD>
> <META HTTP-EQUIV="Content-Type" CONTENT="text/html; charset=iso-8859-1">
> <TITLE>APRSPEED and PICE</TITLE>
>
> <META content="MSHTML 5.50.4207.2601" name=GENERATOR></HEAD>
> <BODY>
> <DIV><SPAN class=250055518-21092000><FONT face=Arial color=#0000ff
> size=2>Yes,  there are numerous stations using MIC-E and TH-D7's  so
> I'm pretty confident that the </FONT></SPAN></DIV> <DIV><SPAN
> class=250055518-21092000><FONT face=Arial color=#0000ff size=2>gateway is set up
> correctly.  The best is probably to use a TNC and second radio and monitor
> the </FONT></SPAN></DIV> <DIV><SPAN class=250055518-21092000><FONT face=Arial
> color=#0000ff size=2>packets. I actually did that last night,  but
> never looked at the actual information sent. </FONT></SPAN></DIV>
> <DIV><SPAN class=250055518-21092000><FONT face=Arial color=#0000ff
> size=2></FONT></SPAN> </DIV> <DIV><SPAN class=250055518-21092000><FONT
> face=Arial color=#0000ff size=2>Thanks for the help.</FONT></SPAN></DIV>
> <DIV><SPAN class=250055518-21092000><FONT face=Arial color=#0000ff
> size=2></FONT></SPAN> </DIV> <DIV><SPAN class=250055518-21092000><FONT
> face=Arial color=#0000ff size=2>73'</FONT></SPAN></DIV> <BLOCKQUOTE dir=ltr
> style="MARGIN-RIGHT: 0px">
>   <DIV class=OutlookMessageHeader dir=ltr align=left><FONT face=Tahoma
>   size=2>-----Original Message-----<BR><B>From:</B> Robert Donnell
>   [mailto:kd7nm@pugetsound.net]<BR><B>Sent:</B> September 21, 2000 12:16
>   PM<BR><B>To:</B> TAPR PIC Development Special Interest
>   Group<BR><B>Subject:</B> [picsig] RE: APRSPEED and PICE<BR><BR></FONT></DIV>
>   <DIV><SPAN class=046510918-21092000><FONT face=Arial color=#0000ff size=2>Hi
>   Dave,</FONT></SPAN></DIV> <DIV><SPAN class=046510918-21092000><FONT face=Arial
>   color=#0000ff size=2></FONT></SPAN> </DIV> <DIV><SPAN
>   class=046510918-21092000><FONT face=Arial color=#0000ff size=2>Are there any
>   other stations in your area using a Mic-E, PIC-E, TinyTrack, Kenwood TH-D7,
>   or TM-D700 and getting proper reports on the internet?  The internet
>   gateway's TNC may be what's not set correctly.  We've seen this with at
>   least one Igate operating in the Pacific Northwest, with the same result -
>   these compressed position reports get damaged and show local (greater Seattle)
>   users in the Atlantic.  I'd suggest that you try to find someone who can
>   monitor your station via RF.  </FONT></SPAN></DIV> <DIV><SPAN
>   class=046510918-21092000><FONT face=Arial color=#0000ff
>   size=2></FONT></SPAN> </DIV> <DIV><SPAN class=046510918-21092000><FONT
>   face=Arial color=#0000ff size=2>73, Bob</FONT></SPAN></DIV> <DIV
>   class=OutlookMessageHeader dir=ltr align=left><FONT face=Tahoma
>   size=2>-----Original Message-----<BR><B>From:</B>
>   bounce-picsig-17770@lists.tapr.org
>   [mailto:bounce-picsig-17770@lists.tapr.org]<B>On Behalf Of </B>David
>   Voges<BR><B>Sent:</B> Thursday, September 21, 2000 10:59 AM<BR><B>To:</B> TAPR
>   PIC Development Special Interest Group<BR><B>Subject:</B> [picsig] RE:
>   APRSPEED and PICE<BR><BR></FONT></DIV> <DIV><SPAN
>   class=620485417-21092000><FONT face=Arial color=#0000ff size=2>Hi
>   Bob</FONT></SPAN></DIV> <DIV><SPAN class=620485417-21092000><FONT face=Arial
>   color=#0000ff size=2></FONT></SPAN> </DIV> <DIV><SPAN
>   class=620485417-21092000><FONT face=Arial color=#0000ff size=2>Thanks for the
>   quick response.  I'm looking at it via winaprs connected to the
>   internet.  </FONT></SPAN></DIV> <DIV><SPAN class=620485417-21092000><FONT
>   face=Arial color=#0000ff size=2>The longitude in question here is 114deg
>   14'  01"  and this shows up as 14deg 14' 01"</FONT></SPAN></DIV>
>   <DIV><SPAN class=620485417-21092000><FONT face=Arial color=#0000ff
>   size=2></FONT></SPAN> </DIV> <DIV><SPAN
>   class=620485417-21092000></SPAN> </DIV> <DIV><SPAN
>   class=620485417-21092000></SPAN><FONT face=Tahoma><FONT face=Arial
>   color=#0000ff size=2></FONT><FONT face=Arial color=#0000ff size=2></FONT><FONT
>   face=Arial color=#0000ff
> size=2></FONT><BR></DIV></BLOCKQUOTE></FONT></BODY></HTML>
>
> ------_=_NextPart_001_01C023FD.F0E1DE2A--
>
> ------------------------------------------------------------------------
>
> Subject: RE: APRSPEED and PICE
> From: "Byon Garrabrant" <byon@mail.com>
> Date: Thu, 21 Sep 2000 17:56:00 -0700
> X-Message-Number: 6
>
> On 21 Sep 00, at 11:59, David Voges wrote:
>
> > Thanks for the quick response.  I'm looking at it via winaprs connected to the
> > internet.  The longitude in question here is 114deg 14'  01"  and this shows
```

> > up as 14deg 14' 01"
>
>
> I noticed a problem with WinAPRS 2.46 a while back that even a
> direct RF link (no digi or internet, Tracker to TNC to PC), WinAPRS
> droped the 100s digit from the longitude. I heard reports it also did
> it on 2.47. Version 2.45 worked fine. Could be related.
>
> Byon
>
> _____________________________________
> Byon Garrabrant   N6BG   byon@mail.com
>
>
>
> ---
>
> END OF DIGEST
>
> ---
> You are currently subscribed to picsig as: mark@plug-in.com.br
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

Marcelo Puhl
mark@plug-in.com.br

Get paid to surf the WEB !
Ganhe dinheiro enquanto surfa na Internet !
http://alladvantage.com/go.asp?refid=DTJ608

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

41. [picsig] RE: APRSPEED and PICE - solved

From: David Voges <DVoges@Interalia.ca>
Date: Fri, 22 Sep 2000 09:18:03 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110590-2000.09.22-10.24.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Good news

My PIC-E is now working. After a long struggle last night and help from
Tino
it was determined that the problem was not the pic-e, but the WinAprs
V2.4.6 I
was using to monitor my packets. I downloaded 2.4.7 and it solved the
problem.

Thanks for the help
de David VE6VDP

-----Original Message-----
From: David Voges [mailto:DVoges@Interalia.ca]
Sent: September 21, 2000 12:59 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Yes, there are numerous stations using MIC-E and TH-D7's so I'm pretty
confident that the
gateway is set up correctly. The best is probably to use a TNC and second
radio and monitor the
packets. I actually did that last night, but never looked at the actual
information sent.

Thanks for the help.

73'
-----Original Message-----
From: Robert Donnell [mailto:kd7nm@pugetsound.net]
Sent: September 21, 2000 12:16 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Hi Dave,

Are there any other stations in your area using a Mic-E, PIC-E, TinyTrack,
Kenwood TH-D7, or TM-D700 and getting proper reports on the internet? The
internet gateway's TNC may be what's not set correctly. We've seen this
with at least one Igate operating in the Pacific Northwest, with the same
result - these compressed position reports get damaged and show local
(greater Seattle) users in the Atlantic. I'd suggest that you try to find
someone who can monitor your station via RF.

73, Bob
-----Original Message-----
From: bounce-picsig-17770@lists.tapr.org
[mailto:bounce-picsig-17770@lists.tapr.org]On Behalf Of David Voges
Sent: Thursday, September 21, 2000 10:59 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] RE: APRSPEED and PICE

Hi Bob

Thanks for the quick response. I'm looking at it via winaprs connected to
the internet.
The longitude in question here is 114deg 14' 01" and this shows up as
14deg 14' 01"

42. [picsig] PIC-E first time programming

From: Mike Walker <mike.walker@home.com>
Date: Sat, 23 Sep 2000 17:55:06 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110737-2000.09.23-17.03.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Newbie question.

I can get my PIC-E to do the initial debug programming. I'm using PicProg
and the power light lights when I attempt to do the initial programming as
described in the PIC-E manual (sort of rules out serial port problems), as
well as the Active light does flash.

After about 2 seconds, PicProg returns with Programmer Initialization Failed.

I've spent some time going through all this, but I can't seem to get it,
including checking the parts on the programming side.

Any suggestions would be appreciated.

thanks... Mike
****
Mike Walker   Corbeil Contest Club
VA3MW   FN03

CLX Custer - telnet:24.112.78.89 41112   ICQ 13622180
****
new email address: mike.walker@home.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

43. [picsig] Re: PIC-E first time programming

From: Ken Isom <isomkDELETE@airmail.net>
Date: Sat, 23 Sep 2000 17:24:13 -0500 (CDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-110743-2000.09.23-17.32.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mike,
I had to try 3 computers till I found one that would drive the rs232 levels
reliably... never of my laptops would work due to limite voltage swings.
Remove the power jumper as stated in the manual... that helped alot.
I would try loading the various test programs and also some of the smaller
simplier applications.
Also, I had to learn the hard way that about how the yellow light works
when a GPS is hooked up... it will NOT come on until the PICE receives
valid NMEA sequence and some GPS units take a up to one minute to

output valid data.
For initial testing purposes only , setup the timers for short durations
like 10seconds between transmissions and watch your RED light accordingly.
Finally, I had problems with PICE locking my HT in transmit mode when
I used the rubber ducky... must have been RF getting back into the unit.
By using my normal outside antenna, it worked fine.

Ken
kd5aia

At 05:55 PM 9/23/00 -0400, you wrote:
>Newbie question.
>
>I can get my PIC-E to do the initial debug programming. I'm using PicProg
>and the power light lights when I attempt to do the initial programming as
>described in the PIC-E manual (sort of rules out serial port problems), as
>well as the Active light does flash.
>
>After about 2 seconds, PicProg returns with Programmer Initialization Failed.
>
>I've spent some time going through all this, but I can't seem to get it,
>including checking the parts on the programming side.
>
>Any suggestions would be appreciated.
>
>thanks... Mike
>**
>Mike Walker   Corbeil Contest Club
>VA3MW   FN03
>
>CLX Custer - telnet:24.112.78.89 41112   ICQ 13622180
>**
>new email address: mike.walker@home.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

44. [picsig] HamHUD has a new home: hamhud.net

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Thu, 28 Sep 2000 12:47:53 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-111690-2000.09.28-12.55.54--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The HamHUD project (a minimalist APRS(tm) mobile terminal with
SmartBeaconing) has a new website:

http://www.hamhud.net   Top level
http://hh2.hamhud.net   HamHUD II (current)
http://hh3.hamhud.net   HamHUD III (in design)

Please feel free to surf on over and see what we're cookin' up. Sorry
for the cross-post; it's hard to hit everybody at once.

73,

Steve Bragg KA9MVA
```
--- __ __ ___   ____  __  ____    _____
   / //_//   | / __ \/  |/  / |  / /   |
  / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |\__, / /  / / | |/ / ___ |
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
```
==========
Steve Bragg KA9MVA   ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.qsl.net/ka9mva/hamhud
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FIND ME WITH APRS! http://map.findu.com/ka9mva-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

45. [picsig] TAPR Press Release

From: John Ackermann <jra@febo.com>
Date: Fri, 29 Sep 2000 13:17:50 -0400

FOR IMMEDIATE RELEASE

TAPR Elects Officers at 19th Annual Digital Communications Conference

John Ackermann, N8UR, was elected the new president of TAPR at the 19th ARRL/TAPR Digital Communications Conference held in Orlando September 21-24.

135 hams, including a dozen from outside the US, attended the annual event, which includes presentation of technical papers, hands-on demonstrations, and beginner's sessions. Over 100 people attended Friday afternoon's APRS seminar, and 70 were present for a technical symposium on programming PIC chips held Sunday morning.

Ackermann succeeds Greg Jones, WD5IVD, who had served as president since 1993, with Steve Bible, N7HPR, replacing Ackermann as vice president. Bob Hanson, N2GDE, will continue to serve as secretary, and Jim Neely, WA5LHS, remains treasurer. The elections were held at TAPR's annual board meeting, held in conjunction with the DCC.

"Greg Jones led TAPR through a period of growth and innovation," Ackermann said. "On his watch, we brought significant new products to market, including the DSP-93 digital signal processing unit, Totally Accurate Clock, and Mic-E and Pic-E data encoders. Greg also laid the groundwork for our Frequency Hopping Spread Spectrum Radio project. He guided us into the Internet age, along the way creating the TAPR SIG mailing lists that now handle thousands of messages per month. Greg is also responsible for our increased publishing activities. His retirement leaves a void in TAPR that will be hard to fill."

Ackermann said that his primary objective will be to ensure that TAPR remains on the cutting edge of radio technology, with a special emphasis on emerging concepts such as Software Defined Radios. He will also focus on increasing membership and optimizing the organization's management structure.

Ackermann (ex-AG9V), who lives in Dayton, Ohio, has served on the TAPR Board of Directors and as vice president since 1995. He was first licensed in 1974 and has helped build packet radio networks in Ohio and Wisconsin. Ackermann is active on APRS, runs a Linux-based Internet site at his home, and can occasionally be found on CW chasing DX.

Bible lives in Kingsland, Georgia, and has been a TAPR Board member since 1996. He was project manager for TAPR's Totally Accurate Clock (TAC-2), EVM Radio Interface, PIC Encoder, and DGPS Reference Station kits. Bible is leading TAPR's development of a road map to develop Software Defined Radio technology for amateur use.

In other news from the DCC:

* TAPR announced that it will be offering the "EasyTrak" satellite rotor and radio controller. This PIC-based unit will control azimuth and elevation rotors for satellite use, as well as tune popular radios for Doppler correction.

* PRUG, the Packet Radio Users Group of Japan, demonstrated the possibilities of low cost Internet-connected sensors and software mobile agent technology. PRUG also introduced the TINI-AMEDES, a Java based one-board computer with Ethernet interface which supports the Dallas Semiconductor 1-wire interface, and provided an update on their 2.4Ghz spread spectrum radio, which has been commercialized by Root, Inc.

* Geoffrey Dick, WA4IKQ, was winner of the grand prize awarded at the Saturday evening banquet. Geoff won a TM-D700 APRS-capable mobile radio donated by Kenwood.

DCC 2001 will be held in Cincinnati, Ohio from September 21-23, 2001. Conference coordinators will be Steve and Sheila Bible assisted by local coordinator Hank Greeb, N8XX.

About TAPR
TAPR (officially, Tucson Amateur Packet Radio, Inc.) is a non-profit research and development corporation dedicated to advancing amateur radio through digital technology. It focuses on development of

hardware and software tools that enable ham radio operators to explore
leading edge technologies. Despite its name, TAPR is an international
organization with over 2000 members worldwide.

Contact information:
Telephone: (940) 383-0000
Email: tapr@tapr.org
Web: http://www.tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

46. [picsig] EasyTrak?

From: "Mark L. Hammond" <hammond@surrealnet.net>
Date: Fri, 29 Sep 2000 19:09:45 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-111933-2000.09.29-18.18.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hey Steve--since the meeting is over, is there any more information
available about this new TAPR project?

Thanks and 73,

Mark L. Hammond [N8MH]

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

47. [picsig] Any German PIC-E Users

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Sat, 30 Sep 2000 18:03:21 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112059-2000.09.30-16.11.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello,

are there any PIC-E users from Germany on this list?
I have some questions . My main question is: How is it possible
to send uncompressed (not MIC-E style) APRS-Data , is there a special
program ?

73 de DK3DUA
Thomas

email: dk3dua@dk3dua.de

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

48. [picsig] Re: Any German PIC-E Users

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Sun, 1 Oct 2000 02:44:22 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112077-2000.09.30-20.52.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

you have to write some code to do that.
is not difficult, but you have to do it.
unless anyone have done it already, you dont need to reinvent the weel.
cheers!

> Hello,
>
> are there any PIC-E users from Germany on this list?
> I have some questions . My main question is: How is it possible
> to send uncompressed (not MIC-E style) APRS-Data , is there a special
> program ?
>
> 73 de DK3DUA
> Thomas

>
> email: dk3dua@dk3dua.de
>
> ---
> You are currently subscribed to picsig as: asena@bigfoot.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

António Sérgio Sena   CT2GPW
asena@bigfoot.com   Tel:+44.131.4756482

"Although i claim dominions over all i see
 It means nothing to me, there are no victories,
 in all our histories, without love...
 But every step i thought of you
 Every footstep only you
 It would make a prison of my life,
 if you became another's wife
 Though all my kingdoms turn to sand
 And fall into the sea
 I am mad about you, i am lost without you"

Homepage: www.qsl.net/ct2gpw
                 planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

October 2000

Original source file: picsig.0010
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0010

1. [picsig] PIC Software

From: Mike Walker <mike.walker@home.com>
Date: Sun, 01 Oct 2000 07:40:44 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112119-2000.10.01-06.49.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm building a PIC-e Tracker to let me wife to use on the marathon that she will be running.

Can anyone recommend what software to use to load on the PIC? I'm still testing GPS-2-E, but I'd like to try some other designs that people have developed.

Mike

VA3MW
==========
New Home address: mailto:mike.walker@home.com
Corbeil Contest Club
http://members.home.net/mwalker3
CLX Cluster: telnet: 24.112.78.89:41112

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: PIC Software

From: "Byon Garrabrant" <byon@mail.com>
Date: Sun, 1 Oct 2000 09:47:51 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112173-2000.10.01-11.56.46--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 1 Oct 00, at 7:40, Mike Walker wrote:

> I'm building a PIC-e Tracker to let me wife to use on the marathon that
> she will be running.
>
> Can anyone recommend what software to use to load on the PIC? I'm still
> testing GPS-2-E, but I'd like to try some other designs that people have
> developed.
>
> Mike

You can also try pice095.zip. It is an assembly version, similar to
GPS-E-2. You need to edit your configuration in the asm files,
then assemble and program the hex file. Let me know if you have
any problems.

Byon
_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] GPS12 & aprspeed

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Sun, 1 Oct 2000 14:05:44 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112187-2000.10.01-12.14.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello dear PIC-E users,

I am not able to get my GPS12 working with aprsspeed. I always see :
>From DK3DUA to ERROR! WIDE WIDE WIDE
NO GPS

when I monitor the packet radio output.

What I have checked so far:

Is the GPS12 in NMEA/NMEA 4800 mode ..... yes
Can I display NMEA-data from GPS12 with NMEA tool and with a straight
connection to the PC ..... yes
Is the PIC-E programmed with the right fuses and the right program
aprsspeed.hex ..... yes
Is the right DELAY defined for 4800baud and 10MHz ..... yes
Is the port pin RA0 who is connected to pin2 (RX) of P2 defined as serial
input ..... yes

Does anyone have an idea what I could check further?
May be there is a problem with R2 (22k) in the RX-Line (GPS12 uses
TTL-level output and not V.24 level like a PC) ?
I also wonder why I see 'to ERROR!' , but this may be a result of the
missing GPS datas.

Best 73 de DK3DUA
Thomas

email: dk3dua@dk3dua.de

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: Any German PIC-E Users

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Sun, 1 Oct 2000 14:13:07 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112188-2000.10.01-12.21.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Antonio,

yes as far as I looked into the original code , they read NMEA and compress
it before sending.
I only have to uncomment the compress part and use the uncompressed data . I
think this mod
will not be a big problem.

But I thought that almost all European APRS stations use the uncompressed
APRS format ,
and every PIC-E-user in Europe should already have a solution for sending
uncompressed data.
What kind of program do all this PIC-E stations we can see on the maps in
Europe use?

Best 73 de DK3DUA
Thomas

email: dk3dua@dk3dua.de

> -----Original Message-----
> From: bounce-picsig-19325@lists.tapr.org
> [mailto:bounce-picsig-19325@lists.tapr.org]On Behalf Of Antonio Sergio
> Sena
> Sent: Sunday, October 01, 2000 1:44 AM
> To: TAPR PIC Development Special Interest Group
> Subject: [picsig] Re: Any German PIC-E Users
>
>
> you have to write some code to do that.
> is not difficult, but you have to do it.
> unless anyone have done it already, you dont need to reinvent the weel.
> cheers!
>
>

> > Hello,
> >
> > are there any PIC-E users from Germany on this list?
> > I have some questions . My main question is: How is it possible
> > to send uncompressed (not MIC-E style) APRS-Data , is there a special
> > program ?
> >
> > 73 de DK3DUA
> > Thomas
> >
> > email: dk3dua@dk3dua.de
> >
> > ---
> > You are currently subscribed to picsig as: asena@bigfoot.com
> > To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>
> António Sérgio Sena   CT2GPW
> asena@bigfoot.com   Tel:+44.131.4756482
>
> "Although i claim dominions over all i see
> It means nothing to me, there are no victories,
> in all our histories, without love...
> But every step i thought of you
> Every footstep only you
> It would make a prison of my life,
> if you became another's wife
> Though all my kingdoms turn to sand
> And fall into the sea
> I am mad about you, i am lost without you"
>
> Homepage: www.qsl.net/ct2gpw
>   planeta.clix.pt/teil97
>
> ---
> You are currently subscribed to picsig as: dk3dua@dk3dua.de
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] RE: GPS12 & aprspeed

From: David Voges <DVoges@Interalia.ca>
Date: Mon, 2 Oct 2000 09:24:55 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112405-2000.10.02-10.31.33--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thomas,
  Make sure the FIX VALID LED on port pin RB0 lights up.
  Until this happens the PIC is not recognizing NMEA and
  will give the ERROR.

de Dave VE6VDP

-----Original Message-----
From: Thomas Rudolph [mailto:dk3dua@dk3dua.de]
Sent: October 01, 2000 7:06 AM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] GPS12 & aprspeed

Hello dear PIC-E users,

I am not able to get my GPS12 working with aprsspeed. I always see :
>From DK3DUA to ERROR! WIDE WIDE WIDE
NO GPS

when I monitor the packet radio output.

What I have checked so far:

Is the GPS12 in NMEA/NMEA 4800 mode ..... yes
Can I display NMEA-data from GPS12 with NMEA tool and with a straight
connection to the PC ..... yes

Is the PIC-E programmed with the right fuses and the right program
aprsspeed.hex ..... yes
Is the right DELAY defined for 4800baud and 10MHz ..... yes
Is the port pin RA0 who is connected to pin2 (RX) of P2 defined as serial
input ..... yes

Does anyone have an idea what I could check further?
May be there is a problem with R2 (22k) in the RX-Line (GPS12 uses
TTL-level output and not V.24 level like a PC) ?
I also wonder why I see 'to ERROR!' , but this may be a result of the
missing GPS datas.

Best 73 de DK3DUA
Thomas

email: dk3dua@dk3dua.de

You are currently subscribed to picsig as: dvoges@interalia.ca
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] aprspeed and UQ0U25

From: "Thomas Rudolph" <dk3dua@dk3dua.de>
Date: Mon, 2 Oct 2000 18:22:38 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112437-2000.10.02-16.30.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

RE: [picsig] GPS12 & aprspeedHello ,

when I use aprspeed I alwas see my packets sent to 'UQ0U25':

... DK3DUA to UQ5U25 RELAY WIDE WIDE .....

I did not make any changes except to put my callsign into settings.asm .
Where does this mysterious callsingn come from , and how can I change it?

Best 73 de DK3DUA
Thomas

email: dk3dua@dk3dua.de

7. [picsig] Re: Any German PIC-E Users

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Tue, 3 Oct 2000 00:47:30 +0100
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112455-2000.10.02-18.56.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hy!!

> yes as far as I looked into the original code , they read NMEA and compress
> it before sending.
> I only have to uncomment the compress part and use the uncompressed data . I
> think this mod
> will not be a big problem.

Solved !
I didnt know that the code was already made.

> But I thought that almost all European APRS stations use the uncompressed
> APRS format ,
> and every PIC-E-user in Europe should already have a solution for sending
> uncompressed data.

Here in Portugal, our working team is influencing people in using uncompressed data, as also
good packet path configuration.
If PIC-E users in Europe are using already made code of TAPR site, they should have that
option. But of course is a personal choice.

I/we prefer, here, using uncompressed data.

> What kind of program do all this PIC-E stations we can see on the maps in
> Europe use?

Its hard to tell you know. Because most of the time the only way to know that is by reading the
status text. If the user has the good sense of telling us what code he/she was using.
In my homemade weather station use uncompressed data, and the status text explain what i
am working with.
Call it a remote weather station. Is kind like a PIC-E, but has LCD, keyboard and weather
sensors. An send weather directly into the radio.

Cheers!

António Sérgio Sena CT2GPW
asena@bigfoot.com Tel: + 44.131.4756482

BEng Electrical & Electronic Engeneering
Heriot-Watt University - Edinburgh

"Although i claim dominions over all i see
It means nothing to me, there are no victories,
in all our histories, without love...
But every step i thought of you
Every footstep only you
It would make a prison of my life,
if you became another's wife
Though all my kingdoms turn to sand
And fall into the sea
I am mad about you, i am lost without you"

Homepage: www.qsl.net/ct2gpw
planeta.clix.pt/teil97

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Re: PIC Software

From: Mike Walker <mike.walker@home.com>
Date: Mon, 02 Oct 2000 20:59:05 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112496-2000.10.02-20.07.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Byon

I've got a sample compiled and working, but I don't understand the digi part.

In:

```
         dt      "VE3QSB", D'0' + H'30'  ; callsign and digis
         dt      "VE3QSB", D'0' + H'30'  ; callsign and digis
```

Where VE3QSB is my 'test' callsign, how do I specify the digi's?

Many thanks... Mike

At 09:47 AM 10/1/00 -0700, you wrote:
>On 1 Oct 00, at 7:40, Mike Walker wrote:
>
> > I'm building a PIC-e Tracker to let me wife to use on the marathon that
> > she will be running.
> >
> > Can anyone recommend what software to use to load on the PIC? I'm still
> > testing GPS-2-E, but I'd like to try some other designs that people have
> > developed.
> >
> > Mike
>
>You can also try pice095.zip. It is an assembly version, similar to
>GPS-E-2. You need to edit your configuration in the asm files,

```
>then assemble and program the hex file.  Let me know if you have
>any problems.
>
>Byon
>_____________________________________
>  Byon Garrabrant   N6BG   byon@mail.com
>
>---
>You are currently subscribed to picsig as: va3mw@rac.ca
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

*********************************************************
Mike Walker                          Corbeil Contest Club
VA3MW                                               FN03

CLX Custer - telnet:24.112.78.89 41112       ICQ 13622180
*********************************************************
new email address:  mike.walker@home.com


---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

9. [picsig] Re: PIC Software

From: "Byon Garrabrant" <byon@mail.com>
Date: Mon, 2 Oct 2000 22:53:33 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112549-2000.10.03-01.02.28--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
On 2 Oct 00, at 20:59, Mike Walker wrote:

> Byon
>
> I've got a sample compiled and working, but I don't understand the digi
> part.
>
> In:
>
>
>          dt      "VE3QSB", D'0' + H'30'  ; callsign and digis
>          dt      "VE3QSB", D'0' + H'30'  ; callsign and digis
>
> Where VE3QSB is my 'test' callsign, how do I specify the digi's?
>
> Many thanks... Mike
>

To set up to send from VE3QSB via WIDE3-3, use

        dt      "VE3QSB", D'0' + H'30'  ; callsign and digis
        dt      "WIDE3 ", D'3' + H'30'  ; callsign and digis
        dt      0

To set up to send from VE3QSB-2 via RELAY, WIDE, use

        dt      "VE3QSB", D'2' + H'30'  ; callsign and digis
        dt      "RELAY ", D'0' + H'30'  ; callsign and digis
        dt      "WIDE  ", D'0' + H'30'  ; callsign and digis
        dt      0

To send from VE3QSB with no digipeaters, use

        dt      "VE3QSB", D'0' + H'30'  ; callsign and digis
        dt      0

Byon
_____________________________________
 Byon Garrabrant   N6BG   byon@mail.com

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

10. [picsig] Pharos GPS RX ?

From: Ron Graham <rongraham@magnet.com.au>
Date: Wed, 04 Oct 2000 08:18:50 +1000

To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-112620-2000.10.03-16.59.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Wonder if anyone has had any experience with the Pharos iGPS-180 receiver
.. this is a GPS receiver built into a unit about the size of a normal
remote GPS antenna, and it contains the antenna as well. Just NMEA data out
.. but looks interesting.

Ron, VK4BRG.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] programming pic-e

From: Bob Albrightson <bob@employees.org>
Date: Tue, 10 Oct 2000 15:33:13 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-114202-2000.10.10-17.41.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello,

I have recently completed construction of a pic-e. I attemted to download
the diagnostic program but it didn't work. I read the information that was
stored on the chip with the "Read Chip" radio button of Tord Andersson's
pic programmer software, and saved the file. I compared that with the
original hex file used for programming. It appeared that some entire
bytes were missing. For example the first entire byte was missing, as well
as a seemingly random group of other bytes.

Has anybody else seen this? Let me know if you need any more inofrmation.

 -bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Re: programming pic-e

From: Mike Walker <mike.walker@home.com>
Date: Wed, 11 Oct 2000 09:04:37 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-114364-2000.10.11-08.13.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob

Did it verify when you downloaded the verify code?

The biggest problem that I had was a 25-9 pin adapter that didn't have pin 8. Apparently it used to be
for a mouse.

Mike

At 06:33 PM 10/10/2000, you wrote:
>Hello,
>
>I have recently completed construction of a pic-e. I attemted to download
>the diagnostic program but it didn't work. I read the information that was
>stored on the chip with the "Read Chip" radio button of Tord Andersson's
>pic programmer software, and saved the file. I compared that with the
>original hex file used for programming. It appeared that some entire
>bytes were missing. For example the first entire byte was missing, as well
>as a seemingly random group of other bytes.
>
>Has anybody else seen this? Let me know if you need any more inofrmation.
>
> -bob
>
>
>---
>You are currently subscribed to picsig as: va3mw@rac.ca
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

```
---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

13. [picsig] Re: programming pic-e

```
From: "Travis J. Maclay" <travis@btea.org>
Date: Wed, 11 Oct 2000 09:20:41 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-114370-2000.10.11-08.29.21--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

Bob, hope this helps. This was a msg from the PIC archives. Let me know if not.

```
-----------------
Subject: Re: Pic-E programming
From: "Rik Stallings" <rik@lcsd.logan.k12.ut.us>
Date: Wed, 28 Jun 2000 10:39:26 -0600
X-Message-Number: 1

I had the same problem when I tried to program mine from my laptop.  When I
went to the desktop it worked.  I guess some serial ports just don't put out
enough juice to do the trick.  Try a serial port on a different computer.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Rik Stallings
Network Systems Administrator
Logan City School District

KD7GNX
E-mail: rik@lcsd.logan.k12.ut.us
Web: http://www.lcsd.logan.k12.ut.us/~rik


"What good is science if nobody gets hurt?"  - Chrome Dome
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
----- Original Message -----
From: Doug McFadden <kc7imr@orednet.org>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Tuesday, June 27, 2000 1:55 PM
Subject: [picsig] Pic-E programming


> Ok what's the secret?
>
> I finally sat down and assembled my Pic-E kit.  I'm impressed, it is a
> well made kit.
>
> The problem is getting the chip programmed.  It keeps comming up
> "Programmer initialization failed".  So I tried several serial cables. jp4
> is off, no luck.  The power on voltage checks were ok, so I decided to
> check voltages in "program mode" i.e. no power applied, jp-4 off,
> connected to the serial port, etc.  What I found was 7.8 volts between vdd
> (14) and vss (5) on the pic chip U1.  So I'm sure the chip said "audioss"
> with this condition.  Now I'm looking at the schematic, wondering why
> there is a 100k resister between vdd(14) and mclr(4) which is tied through
> a 22k resister to pin 3 of P2?  I lifted one end of R1, the 100k resister
> and found 4.8 volts between vdd(14) and vss (5) on the pic chip U1 now, so
> R5, D2, D1 & C1 are working.  I suspect the 9 volts on mclr(4) is not
> going to be high enough to allow the chip to be to be programmed?
>
> So how is anyone getting these things programmed?  Is the serial port on
> my computer hosed?
>
> Where can I find a schematic for a real programmer?
>
> Thanks, in the meantime, I'll order some new chips from tapr.
>
> 73 de Doug
> KC7IMR
>
>
> Trying to establish voice contact ... please yell into your keyboard.
> -=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
> kc7imr@orednet.org            Linux, for the GNU generation!

<><   <><   <><   <><   <><   <><   <><   <><   <><
```

Where's Travis?
http://map.findu.com/w5tjm-7

Want $5 free in less than 3 minutes? Safely pay for items over the internet
with your credit card!
https://secure.paypal.com/refer/pal=travis%40btea.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: programming pic-e

From: Bob Albrightson <bob@employees.org>
Date: Wed, 11 Oct 2000 10:15:36 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-114378-2000.10.11-09.24.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Did it verify when you downloaded the verify code?
>
> The biggest problem that I had was a 25-9 pin adapter that didn't have pin 8. Apparently it used to
be for a mouse.

When I downloaded picediag.hex, it didn't work either -- at first. Then after five more tries it
worked. Funny thing
is the programming software claimed success each time. So, since I sent my first email, I got the diag
to work.
Great.

Now, I tried to download gps-g-2e into the pic and it didn't work. I actually read the chip and
compared it to the hex
file used to program the chip, and it looked okay. One small thing I thought odd was there didn't seem
to be any info
in the hex file for 2000 on up for the config stuff. This was the case for both the original file and
the file I read
off the pic chip. It did have addresses around 4000 hex though....

 -bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] PIC TNC

From: Hosking William-P05328 <Bill.Hosking@motorola.com>
Date: Tue, 17 Oct 2000 12:06:42 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-115464-2000.10.17-14.15.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

FYI, The latest edition of QST has a PIC based KISS TNC in it.

73
Bill W7JSW

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Re: PIC TNC

From: "James E Gutshall" <jeg@cc.usu.edu>
Date: Thu, 19 Oct 2000 03:43:04 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-115647-2000.10.19-04.52.54--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I cant seam to find it in mine.... what month and page?

----- Original Message -----
From: "Hosking William-P05328" <Bill.Hosking@motorola.com>
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Sent: Tuesday, October 17, 2000 1:06 PM
Subject: [picsig] PIC TNC

> FYI, The latest edition of QST has a PIC based KISS TNC in it.
>
> 73
> Bill W7JSW
>
> ---
> You are currently subscribed to picsig as: jeg@cc.usu.edu
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] Re: PIC TNC

From: hshk@ix.netcom.com (HSHK)
Date: Thu, 19 Oct 2000 11:03:22 GMT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-115651-2000.10.19-06.12.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Novemeber 2000 Page 53, 54, 55 and 56.

de KA8VIT

On Thu, 19 Oct 2000 03:43:04 -0600, you wrote:

>I cant seam to find it in mine.... what month and page?
>
>----- Original Message -----
>From: "Hosking William-P05328" <Bill.Hosking@motorola.com>
>To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
>Sent: Tuesday, October 17, 2000 1:06 PM
>Subject: [picsig] PIC TNC
>
>
>> FYI, The latest edition of QST has a PIC based KISS TNC in it.
>>
>> 73
>> Bill W7JSW
>>
>> ---
>> You are currently subscribed to picsig as: jeg@cc.usu.edu
>> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>>
>
>
>---
>You are currently subscribed to picsig as: hshk@ix.netcom.com
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] PIC-E enclosure

From: DA Hughes <dah@dahughes.com>
Date: Fri, 20 Oct 2000 14:36:20 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-115848-2000.10.20-13.51.23--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Anyone have a source/part number for the 'Pic-E enclosure?
Thanks

Peter N3PH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] Re: PIC TNC

From: "klaus.hirschelmann" <k.hirschelmann@mainz.netsurf.de>
Date: Mon, 23 Oct 2000 16:05:47 +0200
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-116175-2000.10.23-09.25.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bill W7JSW wrote about an article regarding a PIC-based TNC for KISS
(QST Nov. 2000, page 53-56)

Hello,
is there any chance to get more informations on this project ? (Maybe
an Internet-Link ?) Unfortunaly i have no access to QST.

73 de Klaus DJ7OO
[Attachment: k.hirschelmann.vcf; text/x-vcard; 125 bytes]

20. [picsig] Re: PIC-E enclosure

From: "Rik Stallings" <rik@lcsd.logan.k12.ut.us>
Date: Tue, 24 Oct 2000 14:39:04 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-116363-2000.10.24-15.50.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

They were designed for a specific Radio-Shack enclosure (can't remember the
part #). I tried to get one of these but the R.S. employee I talked to
called and found that they had been discontinued. Unless there are a few
laying around in R.S. warehouses somewhere, they're not going to be much
help.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Rik Stallings
Network Systems Administrator
Logan City School District

E-Mail: rik@lcsd.logan.k12.ut.us
Amateur Radio: N7XZ

"What good is science if nobody gets hurt?"

----- Original Message -----
From: DA Hughes <dah@dahughes.com>
To: TAPR PIC Development Special Interest Group <picsig@lists.tapr.org>
Sent: Friday, October 20, 2000 12:36 PM
Subject: [picsig] PIC-E enclosure

> Anyone have a source/part number for the 'Pic-E enclosure?
> Thanks
>
> Peter N3PH
>
> ---
> You are currently subscribed to picsig as: rik@lcsd.logan.k12.ut.us
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] Re: PIC-E enclosure

From: srbible@gate.net
Date: Tue, 24 Oct 2000 18:14:22 EST5EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-116371-2000.10.24-17.26.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The enclosure was purchased at Radio Shack and since
designing it I have not check to see if Radio Shack is
still selling it. But the good news is that the enclosure
is made by PacTec and it can be purchased from distributors
and catalog sales. Mouser is one such catalog sales. When
I return home I'll look up the part number.

- Steve, N7HPR

> They were designed for a specific Radio-Shack enclosure
(can't remember the
> part #). I tried to get one of these but the R.S.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

employee I talked to
> called and found that they had been discontinued. Unless
there are a few
> laying around in R.S. warehouses somewhere, they're not
going to be much
> help.
>
>
> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
> Rik Stallings
> Network Systems Administrator
> Logan City School District
>
> E-Mail: rik@lcsd.logan.k12.ut.us
> Amateur Radio: N7XZ
>
> "What good is science if nobody gets hurt?"
>
> ----- Original Message -----
> From: DA Hughes <dah@dahughes.com>
> To: TAPR PIC Development Special Interest Group
<picsig@lists.tapr.org>
> Sent: Friday, October 20, 2000 12:36 PM
> Subject: [picsig] PIC-E enclosure
>
>
> > Anyone have a source/part number for the 'Pic-E
enclosure?
> > Thanks
> >
> > Peter N3PH
> >
> > ---
> > You are currently subscribed to picsig as:
rik@lcsd.logan.k12.ut.us
> > To unsubscribe send a blank email to leave-picsig-
6889M@lists.tapr.org
> >
>
>
> ---
> You are currently subscribed to picsig as:
srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-
6889M@lists.tapr.org
>
>

This message was sent using WebMail by CyberGate.
http://www.gate.net/webmail

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Re: PIC-E enclosure

From: Bill Vodall <wa7nwp@yahoo.com>
Date: Tue, 24 Oct 2000 16:54:17 -0700 (PDT)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-116377-2000.10.24-19.04.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I put my Pic-E in the RS "plastic" box.   My future Pic-E's
or homebuilt equivalents will be in metal boxes to reduce
the posibility of RF noise from the microprocessor. I haven't
noticed it yet in the HF rig, I just want to be more careful
in the future.

Bill - WA7NWP

> The enclosure was purchased at Radio Shack and since
> designing it I have not check to see if Radio Shack is
> still selling it. But the good news is that the enclosure
> is made by PacTec and it can be purchased from distributors

> and catalog sales. Mouser is one such catalog sales. When
> I return home I'll look up the part number.
>
> - Steve, N7HPR

_____
Do You Yahoo!?
Yahoo! Messenger - Talk while you surf! It's FREE.
http://im.yahoo.com/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] ITU programmer and 16F87x

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Thu, 26 Oct 2000 22:25:10 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-116669-2000.10.26-22.31.51--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Am wondering if anyone in the group has any experience in
using the ITU Technologies PIC-1 programmer with the PIC
16F872 or 16F873 chips?
The readme file indicates this should be possible, but my
efforts to date have been less than fruitful. I seem to be
able to read the PIC, but when I try program it with a test
file I wrote, the program kicks me out with a "failed" message.
I'm not certain if the fault lies with the programmer or my test
code, however, the code assembled fine with MPASM.
If someone has a snipit of '872 or '873 code I could use to test
with, I'd be a happy camper :)
73 Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] Re: ITU programmer and 16F87x

From: John Hansen <john@hansen.net>
Date: Fri, 27 Oct 2000 09:03:52 -0400
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-116708-2000.10.27-08.16.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You might take a look at ROMZAP, which claims to provide a cheap and easy
way to program these
devices. http://www.picnpoke.com/demo/ROMzap.html   If you download the
software, there is a construction schematic in the package that doesn't
look too difficult to build. There's a sort of vague discussion in there
about having to load something into the chip before you can program
it. This may have to do with the difference between 5 volt programming and
dual voltage programming, though. It is possible that this might have
something to do with the problem that you are having.

I use a Microchip ICD for programming 877's and it works quite
well. However, I too, would like to get my ITU programmer working with
these newer chips. I use the PP software with it for other PICs, which is
command line driven and very very fast (much faster than the original ITU
software). The ICD seems to be quite a bit slower, though it is possible
that this is an illusion because of the larger capacity of the chip. What
software are you trying to use with the ITU for programming 872's? If you
do get this working, I for one would appreciate it if you would post the
results.

At 10:25 PM 10/26/00 -0500, you wrote:
>Am wondering if anyone in the group has any experience in
>using the ITU Technologies PIC-1 programmer with the PIC
>16F872 or 16F873 chips?
>The readme file indicates this should be possible, but my
>efforts to date have been less than fruitful. I seem to be
>able to read the PIC, but when I try program it with a test
>file I wrote, the program kicks me out with a "failed" message.

>I'm not certain if the fault lies with the programmer or my test
>code, however, the code assembled fine with MPASM.
>If someone has a snipit of '872 or '873 code I could use to test
>with, I'd be a happy camper :)
>73 Mike N0QBH
>
>
>---
>You are currently subscribed to picsig as: john@hansen.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] Re: PIC-E enclosure

From: Ron Graham <rongraham@magnet.com.au>
Date: Sun, 24 Jan 1999 01:12:48 +1000
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-116781-2000.10.27-17.03.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I did a clone of the PIC-E to use in this part of Australia .. built a
number and fitted them into a nice looking plastic box .. no problems (so
far) with clock signals getting into radios etc. Though the day may come!!!!
I think this is mainly due to the clock type signals being essentially
confined to their respective chips .. ie no long conductors on the PCB
carrying those sort of signals.

By the way, due to number of PCB's I had made, I have ended up with a
surplus of these units .. anyone interested can read about them described as
APRS INTERFACE under ARPS on my web site at www.mackay.net.au/~ron and
further any enquiry vai e-mail.

Ron, VK4BRG.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

26. [picsig] Re: ITU programmer and 16F87x

From: "Byon Garrabrant" <byon@mail.com>
Date: Fri, 27 Oct 2000 21:46:07 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: <picsig@lists.tapr.org>
Message-ID: <LYR6890-116807-2000.10.28-00.01.58--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 26 Oct 00, at 22:25, Mike Berg wrote:

> Am wondering if anyone in the group has any experience in
> using the ITU Technologies PIC-1 programmer with the PIC
> 16F872 or 16F873 chips?

Mike,

  I had good luck using icprog (http://www.h2deetoo.demon.nl/) to
program the PIC16F876 for TinyTrak II development. I have used
the software with my parallel port Tait programmer (PP.EXE style),
as well as with my Hansen/LudiPipo/PIC-E syte programmer.

  The only draw backs so far for me, are that it is not (nicely)
command-line driven, and it is not fast (PP.EXE only writes
changed values). That's not a big deal for those that want to
program only once or twice, but is a bit uncomfortable for
development. I expect that I will be able to program the TinyTrakII's
16CE625 with it as well.

73,
Byon
____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

27. [picsig] Re: picsig digest: October 28, 2000

From: "Mike Berg" <mikeberg@midstate.tds.net>
Date: Mon, 30 Oct 2000 20:19:11 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117184-2000.10.30-20.34.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>On 26 Oct 00, at 22:25, Mike Berg wrote:
>
>> Am wondering if anyone in the group has any experience in
>> using the ITU Technologies PIC-1 programmer with the PIC
>> 16F872 or 16F873 chips?
>
>Mike,
>
> I had good luck using icprog (http://www.h2deetoo.demon.nl/) to
>program the PIC16F876 for TinyTrak II development. I have used
>the software with my parallel port Tait programmer (PP.EXE style),
>as well as with my Hansen/LudiPipo/PIC-E syte programmer.
>

Thanks for the informative link. I discovered the ITU programmer is
a clone on the Tait "classic" programmer except the IC buffer is
inverting instead of noninverting. Had my hopes up, but soon
got an error message stating this programmer isn't supported for
the device i.e 16F873.
Decided to bite the bullet and ordered a Warp-13 programmer.
This will force me to finally learn to use MPLAB (which is a good thing :)
Thanks for the feedback.
73 Mike N0QBH

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

28. [picsig] Re: picsig digest: October 28, 2000

From: Jeff King <jeff@aerodata.net>
Date: Tue, 31 Oct 2000 01:15:30 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117222-2000.10.31-00.22.22--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mike:

Warp13 also has its own standalone program, in addition to working within
MPLAB in picstart mode. So, you don't have to learn MPLAB unless you want to.
MPLAB is not bad, a bit fragile however (I think its still a 16 bit app).... I use
RESOLUTIONS ICEPIC emulator, but MPLAB can be used in single step simulate mode.

I have a WARP13 and PicStart, and like the front end software that WARP13 provides.
MPLAB is slightly faster burning PIC's then the WARP13 software, but he (newfoundland)
recently made some changes to speed it up at my request. So, the author is responsive
to the customers. Mechanically, I like the PicStart better as it is laid out more
sensibly then the WARP13.

I bought my Warp13 from CCS. A good product.

73

Jeff

Mike Berg wrote:
>
> >On 26 Oct 00, at 22:25, Mike Berg wrote:
> >
> >> Am wondering if anyone in the group has any experience in
> >> using the ITU Technologies PIC-1 programmer with the PIC
> >> 16F872 or 16F873 chips?
> >
> >Mike,
> >
> > I had good luck using icprog (http://www.h2deetoo.demon.nl/) to
> >program the PIC16F876 for TinyTrak II development. I have used
> >the software with my parallel port Tait programmer (PP.EXE style),
> >as well as with my Hansen/LudiPipo/PIC-E syte programmer.

> >
>
> Thanks for the informative link. I discovered the ITU programmer is
> a clone on the Tait "classic" programmer except the IC buffer is
> inverting instead of noninverting. Had my hopes up, but soon
> got an error message stating this programmer isn't supported for
> the device i.e 16F873.
> Decided to bite the bullet and ordered a Warp-13 programmer.
> This will force me to finally learn to use MPLAB (which is a good thing :)
> Thanks for the feedback.
> 73 Mike N0QBH
>
> ---
> You are currently subscribed to picsig as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

29. [picsig] Re: picsig digest: October 28, 2000

From: "Byon Garrabrant" <byon@mail.com>
Date: Tue, 31 Oct 2000 10:20:13 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117313-2000.10.31-12.36.55--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 30 Oct 00, at 20:19, Mike Berg wrote:

> > I had good luck using icprog (http://www.h2deetoo.demon.nl/) to
> >program the PIC16F876 for TinyTrak II development. I have used
> >the software with my parallel port Tait programmer (PP.EXE style),
> >as well as with my Hansen/LudiPipo/PIC-E syte programmer.
>
> Thanks for the informative link. I discovered the ITU programmer is
> a clone on the Tait "classic" programmer except the IC buffer is
> inverting instead of noninverting. Had my hopes up, but soon
> got an error message stating this programmer isn't supported for
> the device i.e 16F873.
> Decided to bite the bullet and ordered a Warp-13 programmer.
> This will force me to finally learn to use MPLAB (which is a good thing :)
> Thanks for the feedback. 73 Mike N0QBH

Are you saying you determined that icprog will not program a
16F873 with a Tait style programmer? Because it appears to me
that is can. You can overcome the inverting issues with the icprog
config dialog.

BTW, I spent a couple hours chasing what turned out to be a stack
overflow bug on TinyTrakII. I'll bet if I was using the ICD, I would
have found it much quicker. May be time to upgrade.

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

30. [picsig] Re: picsig digest: October 28, 2000

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Tue, 31 Oct 2000 14:49:56 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117324-2000.10.31-14.59.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Byon Garrabrant wrote:

> BTW, I spent a couple hours chasing what turned out to be a stack
> overflow bug on TinyTrakII. I'll bet if I was using the ICD, I would
> have found it much quicker. May be time to upgrade.

I have used the Microchip ICD (In-Circuit Debugger), and can firmly say
that I detest it. It absorbs too much code space (256 words out of 8K),
too many resources (PIC pins, RAM) to be practical for any large
application. I suggest you write your own loader, and save your $160
for something else.

```
73,

Steve Bragg KA9MVA
steve@hamhud.net
--- __ __ ___   ____  __  ____    _____
   / //_//   | / __ \/  |/  / |  / /   |
  / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |\__, / /  / / | |/ / ___ |
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
=======================================================
Steve Bragg KA9MVA    ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.hamhud.net
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FINDU, FIND ME WITH APRS! http://map.findu.com/ka9mva-9

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

November 2000

Original source file: picsig.0011
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0011

1. [picsig] Re: picsig digest: October 28, 2000

From: "Mark Hellman" <mhellman@home.com>
Date: Fri, 3 Nov 2000 12:37:28 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117902-2000.11.03-13.51.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have the ICD and find it invaluable for debugging hardware. This IS what
it is for. If you are only debugging code that is not dependant on your
hardware (numeric conversions, math and such) use an emulator, much faster.
If your code depends on hardware and has to run at full speed to test, you
only have two choices, ICD or ICE. 256 instructions, 3 RAM locations and 2
pins verses an extra $500, you choose. BTW, if you plan to use ISP for
production, the two pins are better off left unused anyway. My only
complaint is that it is VERY slow when single stepping. You have to develop
a good list of break points to test effectively.

Byon, what is TinyTrakII? Where can I find out more info?

Have a GREAT day,

Mark

-----Original Message-----
From: bounce-picsig-20367@lists.tapr.org
[mailto:bounce-picsig-20367@lists.tapr.org]On Behalf Of Steve Bragg
Sent: Tuesday, October 31, 2000 1:50 PM
To: TAPR PIC Development Special Interest Group
Subject: [picsig] Re: picsig digest: October 28, 2000

Byon Garrabrant wrote:

> BTW, I spent a couple hours chasing what turned out to be a stack
> overflow bug on TinyTrakII. I'll bet if I was using the ICD, I would
> have found it much quicker. May be time to upgrade.

I have used the Microchip ICD (In-Circuit Debugger), and can firmly say
that I detest it. It absorbs too much code space (256 words out of 8K),
too many resources (PIC pins, RAM) to be practical for any large
application. I suggest you write your own loader, and save your $160
for something else.

73,

Steve Bragg KA9MVA
steve@hamhud.net
```
--- __ __ ___   _____ __  ____    _____
   / //_//   | / __ \/  |/  / |  / /   |
  / ,<  / /| |/ /_/ / /|_/ /| | / / /| |
 / /| |/ ___ |\__, / /  / / | |/ / ___ |
/_/ |_/_/  |_/____/_/  /_/  |___/_/  |_|
=========================================================
```
Steve Bragg KA9MVA   ka9mva@qsl.net   ICQ:29816109
HamHUD APRS Mobile Terminal: www.hamhud.net
Owasso, Oklahoma, USA
Owasso Amateur Radio Club www.qsl.net/oarc
FINDU, FIND ME WITH APRS! http://map.findu.com/ka9mva-9

You are currently subscribed to picsig as: mark@navmasters.com
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] Re: picsig digest: October 28, 2000

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 03 Nov 2000 15:08:22 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>

Message-ID: <LYR6890-117913-2000.11.03-14.18.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> ICD or ICE. 256 instructions, 3 RAM locations and 2
>pins verses an extra $500, you choose. BTW, if you plan to use ISP for
>production, the two pins are better off left unused anyway. My only
>complaint is that it is VERY slow when single stepping. You have to develop
>a good list of break points to test effectively.

Wow.

The AVR "Tiny ICE" is $200, and runs at full speed, with no pins eaten.
7.9 mips average at 8 mhz, no "pages", vectored ints, no "pages"..

--
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Re: picsig digest: October 28, 2000

From: Steve Bragg <steve.bragg@itelemetry.net>
Date: Fri, 03 Nov 2000 14:28:44 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117914-2000.11.03-14.38.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

David VanHorn wrote:

> Wow.
>
> The AVR "Tiny ICE" is $200, and runs at full speed, with no pins eaten.
> 7.9 mips average at 8 mhz, no "pages", vectored ints, no "pages"..

This just in: due to the fact that their stuff just doesn't measure up
to Atmel's, the 2nd-largest microcontroller vendor in the world,
Microchip, has decided to capitulate to a leveraged buyout, close its
doors, and resign in shame. All former PIC programmers and designers
are instructed to not divulge their checkered past, and to prepare for
assimilation.

Despite the fact that Microchip's four fab plants were immediately
snapped up by Atmel, lead times for key AVR parts just jumped from 26
weeks to 14 years.

Dream on, Dave ;-)

73,

Steve Bragg KA9MVA

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: EasyTrak?

From: "Mark L. Hammond" <hammond@surrealnet.net>
Date: Fri, 03 Nov 2000 15:55:48 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117915-2000.11.03-15.06.04--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Okay...over a month later, and the question remains :-)

73,

Mark

At 06:09 PM 9/29/2000, you wrote:
>Hey Steve--since the meeting is over, is there any more information
>available about this new TAPR project?
>

>Thanks and 73,
>
>Mark L. Hammond [N8MH]

Mark L. Hammond [N8MH]

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

5. [picsig] Re: EasyTrak?

From: srbible@gate.net
Date: Fri, 3 Nov 2000 17:52:21 EST5EDT
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117935-2000.11.03-17.07.30--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Mark,

Sorry that I have not replied sooner. In the past month I
have changed jobs and relocated to Chandler, AZ (three
guesses who I work for and the first two don't count :-).

I'll get the EasyTrak web page made up and post the paper
submitted to both the DCC and AMSAT meeting.

TAPR has committed to making it a kit and it's the one with
my highest priority right now. Hopefully in the next
couple of months it will be out.

I know this is short. Any questions I can answer?

- Steve N7HPR

> Okay...over a month later, and the question remains :-)
>
> 73,
>
> Mark
>
> At 06:09 PM 9/29/2000, you wrote:
> >Hey Steve--since the meeting is over, is there any more
information
> >available about this new TAPR project?
> >
> >Thanks and 73,
> >
> >Mark L. Hammond [N8MH]
>
>
> Mark L. Hammond [N8MH]
>
>
> ---
> You are currently subscribed to picsig as:
srbible@gate.net
> To unsubscribe send a blank email to leave-picsig-
6889M@lists.tapr.org
>
>

This message was sent using WebMail by CyberGate.
http://www.gate.net/webmail

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

6. [picsig] Re: EasyTrak?

From: "Mark L. Hammond" <hammond@surrealnet.net>
Date: Fri, 03 Nov 2000 18:33:25 -0500

To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117937-2000.11.03-17.43.48--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 12:52 PM 11/3/2000, you wrote:
>Hello Mark,
>
>Sorry that I have not replied sooner. In the past month I
>have changed jobs and relocated to Chandler, AZ (three
>guesses who I work for and the first two don't count :-).
>
>I'll get the EasyTrak web page made up and post the paper
>submitted to both the DCC and AMSAT meeting.
>
>TAPR has committed to making it a kit and it's the one with
>my highest priority right now. Hopefully in the next
>couple of months it will be out.
>
>I know this is short. Any questions I can answer?

Thanks! Didn't know you were on the move...

Obvious question(s)--

When to be released?
How much for the kit?
Need any beta testers?

73 and thanks for the quick reply,

Mark

>- Steve N7HPR
>
>
> > Okay...over a month later, and the question remains :-)
> >
> > 73,
> >
> > Mark
> >
> > At 06:09 PM 9/29/2000, you wrote:
> > >Hey Steve--since the meeting is over, is there any more
>information
> > >available about this new TAPR project?
> > >
> > >Thanks and 73,
> > >
> > >Mark L. Hammond [N8MH]
> >
> >
> > Mark L. Hammond [N8MH]
> >
> >
> > ---
> > You are currently subscribed to picsig as:
>srbible@gate.net
> > To unsubscribe send a blank email to leave-picsig-
>6889M@lists.tapr.org
> >
> >
>
>
>---
>This message was sent using WebMail by CyberGate.
>http://www.gate.net/webmail
>
>
>
>---
>You are currently subscribed to picsig as: hammond@surrealnet.net
>To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

Mark L. Hammond [N8MH]

You are currently subscribed to picsig as: lyris.picsig@tapr.org

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] Re: picsig digest: October 28, 2000

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 03 Nov 2000 20:23:55 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-117943-2000.11.03-19.34.13--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>Despite the fact that Microchip's four fab plants were immediately
>snapped up by Atmel, lead times for key AVR parts just jumped from 26
>weeks to 14 years.
>
>Dream on, Dave ;-)

The logjam is clearing, as predicted.
Digikey is shipping 8535's to me right now.
Shortages are always temporary, and almost always followed by a glut.

Honestly, I just don't "get" the attraction of the pic family.
There's a bunch of other peoples's (buggy) code you can grab, and they do
make a bewildering array of different devices.

The internals though, are (at least to me) painfully procrustean.

Maybe I'm spoiled. My first real microcontroller was the Z8, which is a
beautiful machine internally, but their support blows bigtime, and they are
just now starting to catch on to reprogrammable devices. (kind of like
another certain large microcontroller vendor) I had the $8k emulator, and
the $1200 programmer, so it wasn't an obstacle for me, but the $7 OTP
devices were kind of a pain. The biggest problem for me with the Z8 was
the xtal/12 divider for instruction cycles. At 12 MHz, you'd be lucky to
drag 0.7 Mips out of it. Still, all registers work with all instructions,
and all ram is registers, so you don't waste any time moving data to the
magic register before you can do anything with it.

The AVR is nearly that good, in that it's got 32 registers, and almost all
instructions work in all registers. It's got no divider on the xtal, so 8
mhz is like 7.9 mips because only a few instructions take more than one
clock. Vectored ints are nice too, no time wasted figuring out who needs
service.

/soapbox.

(some day, they will see the light...)

--
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] Re: picsig digest: October 28, 2000

From: "Byon Garrabrant" <byon@mail.com>
Date: Sat, 4 Nov 2000 08:37:40 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118079-2000.11.04-10.48.07--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3 Nov 00, at 12:37, Mark Hellman wrote:

> Byon, what is TinyTrakII? Where can I find out more info?

Well, If you are not familiar with TinyTrak, check out
www.byonics.com/tinytrak . Then throw in Altitude,
SmartBeaconing, Time Slotting, 9600 baud, a bunch of other
smaller features, and maybe WX stations, thermometers, RDF,
and other reporting formats, and you get to TinyTrak II. Hopefully
I'll start some beta testing in Dec.

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org

To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] LCLINT for CCS and HiTech(?)

From: Jeff King <jeff@aerodata.net>
Date: Sat, 04 Nov 2000 14:02:59 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118088-2000.11.04-13.09.29--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I posted this last February, but the product is good enough
it deserves mention again (and I just used it again yesterday!).
I tend to like to write code for long periods of time without
compiling (and often its not practical) so running the source
through PCLINT first catches alot of the typo's CCS would not
catch and/or wouldn't specifically identify.

It (LCLINT) I imagine could also be made to work with HiTech
as well.

73

Jeff

One of the users of the CCS webboard wrote a CCS interface for
PCLINT. I had a chance to use it with a large project last month,
and it really helped me find some typos that were stopping me from
getting a good compile. Highly recommended. See:

http://www.deja.com/=dnc/[ST_rn=ps]/getdoc.xp?AN=567939589

Addendums:

http://www.deja.com/[ST_rn=ps]/getdoc.xp?AN=568365960
http://www.deja.com/[ST_rn=ps]/getdoc.xp?AN=570612427
http://www.deja.com/[ST_rn=ps]/getdoc.xp?AN=571296164

LCLINT is at:

http://lclint.cs.virginia.edu/

73

Jeff wb8wka

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

10. [picsig] Someone once told me this list isn't just for pics... so:

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 04 Nov 2000 15:47:26 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118098-2000.11.04-14.57.11--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As Steve Bragg will testify, I am a major fan of the Atmel AVR processor :)

I have been making available, through Dontronics and now through the AVR
group at egroups.com, an application for the AVR8515 called "gettting
started". Originally, it was pretty simple. I first wrote it to illustrate
how to set up the chip, and how to use the major on-board peripherals, but
like anything left in the refigerator too long, it's been growing. It has
a bunch of handy routines for external devices, like R/C servos, LCD and
VFD displays, stepper motors.. Version 4.0 has all that, plus the major
additions below:

Finally, it's done. Version 4.0. I've mailed it to Don @ dontronics, I
don't know how long it will take for him to make it available. It is
available now at the egroups site (avr@egroups.com).

The biggest changes are:

The elimination of the old linear buffers. They've been replaced with
variable length circular buffers. I made them variable length, in
preparation for a dynamic allocation scheme, but I'm not sure at this point

if it's worth implementing. That's part of what I'm exploring for version 5.0

The implementation of a language interpreter, reading commands with optional parameters from EEPROM. This also means that the program in EEPROM is alterable, so this is a starting point for a robot or other device that could "learn". The language only has four commands implemented, but I didn't want to make it too complicated at first. It is trivially easy to add your own commands, and they can be simple procedures, or they could alter the behaviour of other parts of the system. It's entirely up to the user. Currently implemented commands: Delay (ms), Servo position (servo) (position), Loop, and Skip (commands to skip) I didn't implement variables, but adding a few fixed variables would be trivial. I'm looking for a more flexible scheme that would allow me to allocate variable memory dynamically, but again, that's something for 5.0

There are many cleanups and improvements in the other routines as well. The hardware assignments are easier to deal with, and I've pulled in all the rom and ram allocations to the routines that use them, rather than having them in "tables.asm" and "equates.asm"

It's still fast, and it uses just over half the rom (as configured) and less than half the ram (again, as configured) In a real application, you probably allocate only a small subset of the buffers I have in this demo, but I wanted to make it visually "busy", so I am using all eight servos (one is controlled by the interpreted program, one is controlled by the random generator, and the rest simply ramp), a VFD display (scrolling the top and bottom lines in opposite directions within the same buffer), and LCD display with different text, but scrolling similarly, and a "Quick brown fox" output on the serial port, plus morse code output with randomized messages.

Given all that, the CPU is still nearly idle :)
--
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

11. [picsig] Re: EasyTrak?

From: "Steven R. Bible" <srbible@gate.net>
Date: Sat, 4 Nov 2000 19:53:25 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118165-2000.11.04-21.03.23--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >I know this is short. Any questions I can answer?
>
> Thanks! Didn't know you were on the move...
>
> Obvious question(s)--
>
> When to be released?

Hopefully in another 3-4 months. I have 8 alpha's that need to go to their respective alpha owners for operational testing. My moving has slowed this down. But I brought them with me and hope to assemble and mail them out PDQ.

> How much for the kit?

The plan is to include a case. Also, it should be emphazised that EasyTrak as initially designed is rotor/radio interface. The tracking and doppler tuning smarts are in the tracking program. EasyTrak works with WiSP and NOVA and Win- MacAPRS (see DCC or AMSAT proceedings).

So to answer your question :-) less than $200.00 in kit form.

> Need any beta testers?

More than likely. I'll let everyone know when we are ready. After alpha testing we'll run a beta run and them production run.

- Steve, N7HPR
  n7hpr@tapr.org

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

12. [picsig] Capacitance/Inductance meter using PIC-E

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Sun, 05 Nov 2000 19:37:52 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118333-2000.11.05-19.48.34--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Has anyone tried to build a capacitance/inductance meter for the PIC-E
or at least using the 'F84 uP?

I did a quick scan of Far Circuits, and found a few boards, but I doubt
they were processor based. I'll content to search, but thought I'd
throw this out to the SIG. What I had in mind was a simple readout
(2x20 or 2x16 LCD, say) that fit in a package like a pair of tweezers,
so one could use it to measure chip caps and chip inductors.

Perhaps someone knows of a magazine article that covers this kind of
project.

Does this sound reasonable, or feasible? Yeah, it's feasible if you
have enough money <G>, but us hams are kinda cheap, heh? Thought about
this again today as I was looking at some boards that have taken a
lightning hit (modem and serial cards) at one time or another, and I was
saving to reuse components from them. Now, that is the height of
cheapness, huh!

Thanks,
73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

13. [picsig] Re: picsig digest: November 05, 2000

From: Steven Ciciora <ciciora@Ciciora.com>
Date: Thu, 9 Nov 2000 09:23:36 -0700 (MST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118863-2000.11.09-10.33.49--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes, check out: http://www.aade.com/lcmeter.htm I first saw this in a
magazine article, but after never getting around to build it, I ended up
just buying the kit. A great value, but I could have built it for less
(if I ever got around to it...). If memory serves, the author of this
project offered on the QRP_L emailing list to email an excel spread sheet
with several hundered caps and inductors comparing it to labatory grade HP
equipment. Check out the specs, great resolution, repeatable, etc. I
like mine. Measures at a frequency of about 100 khz, though. A random
inductor I measured didn't work worth a darn at 40 meters :-)

- Steven Ciciora

P.S. Oh, I think the construction article was in Radio Electronics. It
was a hobbiest electronics mag., not a ham mag. The source code could
still be on their web site. Only $99 to buy the kit, though, and it will
be in a nice case.

> Subject: Capacitance/Inductance meter using PIC-E
> From: Dale Seaburg <kg5lt@earthlink.net>
> Date: Sun, 05 Nov 2000 19:37:52 -0600
> X-Message-Number: 1
>
> Has anyone tried to build a capacitance/inductance meter for the PIC-E
> or at least using the 'F84 uP?
>
> I did a quick scan of Far Circuits, and found a few boards, but I doubt
> they were processor based. I'll content to search, but thought I'd
> throw this out to the SIG. What I had in mind was a simple readout
> (2x20 or 2x16 LCD, say) that fit in a package like a pair of tweezers,
> so one could use it to measure chip caps and chip inductors.
>
> Perhaps someone knows of a magazine article that covers this kind of

> project.
>
> Does this sound reasonable, or feasible? Yeah, it's feasible if you
> have enough money <G>, but us hams are kinda cheap, heh? Thought about
> this again today as I was looking at some boards that have taken a
> lightning hit (modem and serial cards) at one time or another, and I was
> saving to reuse components from them. Now, that is the height of
> cheapness, huh!
>
> Thanks,
> 73 - Dale. KG5LT

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

14. [picsig] Re: Capacitance/Inductance meter using PIC-E

From: Dale Seaburg <kg5lt@earthlink.net>
Date: Fri, 10 Nov 2000 07:44:02 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-118979-2000.11.10-07.54.45--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve,

Thanks for the reply. I did find that enter in a subsequent deeper
search of the 'Net. That was the one that came to my mind, too. I
remember the article in Popular Electronics. I get that rag. It has
good ideas from time to time.

And, I am ordering myself one. I really want a tweezer-style, but, Neil
- the owner of Almost All Digital Electronics - gave me some hints on
how to handle SMD's with his instrument. I, too am impressed with it's
accuracy. He's done a good job with this hobby-priced instrument.

73 - Dale. KG5LT

> ...
> Yes, check out: http://www.aade.com/lcmeter.htm I first saw this in a
> magazine article, but after never getting around to build it, I ended up
> just buying the kit. A great value, but I could have built it for less
> (if I ever got around to it...). If memory serves, the author of this
> project offered on the QRP_L emailing list to email an excel spread sheet
> with several hundered caps and inductors comparing it to labatory grade HP
> equipment. Check out the specs, great resolution, repeatable, etc. I
> like mine. Measures at a frequency of about 100 khz, though. A random
> inductor I measured didn't work worth a darn at 40 meters :-)
> ...

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

15. [picsig] Information

From: John Mc Hugh <johnk.mchugh@worldnet.att.net>
Date: Sun, 12 Nov 2000 22:24:57 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119331-2000.11.12-21.38.15--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi All,

I need some programming help to get more wx stations on line. Steve
Dimse had developed a PIC unit to take the complete record output of a
Peet U2000 and parse it so that the remainder could be applied to a TNC
for use on APRS. That would allow someone to view the Peet Weather
Picture (which needs complete record) and still transmit wx data on
APRS. This is exactly what I want to do but unfortunately Steve no
longer has the code to do that. Has anyone on the SIG done this with the
TAPR PIC-E kit or has been able to modify the U2K code that comes with
the PIC-E to do this?

Second project involves the Davis wx station that has the data logger. I
would like to know if anyone has been successful in writing code for the
PIC-E to convert the Davis code into something that can be outputted to
a TNC for APRS use. I know that a dual port PC can do it but for
reliability's sake I don't want a PC involved

I'm hoping that some of the programming gurus can or have solved these
problems, looking forward to some positive answers.

Thanks,

John
--
John Mc Hugh, KU4GY
Coordinator for Amateur Radio
National Hurricane Center, W4EHW
Miami, Florida
Home Page: http://www.fiu.edu/orgs/w4ehw/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

16. [picsig] Re: Information

From: Ray Vaughan <ray@rayvaughan.com>
Date: Sun, 12 Nov 2000 23:11:53 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119352-2000.11.12-22.22.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 10:24 PM 11/12/00 -0500, you wrote:
>Second project involves the Davis wx station that has the data logger. I
>would like to know if anyone has been successful in writing code for the
>PIC-E to convert the Davis code into something that can be outputted to
>a TNC for APRS use. I know that a dual port PC can do it but for
>reliability's sake I don't want a PC involved

 From the VERY little I know about the PIC-e, the Davis won't work. Here's why: The PICe circuit needs
 some source of time.   It gets this from a GPS or certain weather stations by looking at the time of
day that's included in the packets coming in.   Transmit every 5 minutes?   When the time now equals
last transmit time +5, transmit.   When there's no source of time, there's no way to time anything.

So, from what I've heard, the Peets work, and the Radio Shack should be able to.

Hopefully, someone has a work around, like maybe a Dallas real time chip, but that's why beyond what I
can do.

        Ray J. Vaughan, MS, CBTE, CERT
        KD4BBM PG-7-15266
        http://www.rayvaughan.com/
        ray@rayvaughan.com
        ray@2-way.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

17. [picsig] Re: Information

From: "Byon Garrabrant" <byon@mail.com>
Date: Sun, 12 Nov 2000 20:29:46 -0800
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119362-2000.11.12-22.43.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 12 Nov 00, at 23:11, Ray Vaughan wrote:

> At 10:24 PM 11/12/00 -0500, you wrote:
> >Second project involves the Davis wx station that has the data logger. I
> >would like to know if anyone has been successful in writing code for the
> >PIC-E to convert the Davis code into something that can be outputted to a
> >TNC for APRS use. I know that a dual port PC can do it but for
> >reliability's sake I don't want a PC involved
>
> From the VERY little I know about the PIC-e, the Davis won't work.
> Here's why: The PICe circuit needs some source of time.   It gets this
> from a GPS or certain weather stations by looking at the time of day
> that's included in the packets coming in.   Transmit every 5 minutes?
> When the time now equals last transmit time +5, transmit.   When there's
> no source of time, there's no way to time anything.

Actually, the PIC-E can do a pretty good job of timing. In fact, in
both John Hansen's and my MIC-E code, neither one of us even
used the time provided from the GPS.

In my opinion, it should be very doable to make the PIC-E receive
the Davis code and transmit it for APRS without even using a TNC.

Byon
_____
 Byon Garrabrant   N6BG   byon@mail.com

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

18. [picsig] Re: Information

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 13 Nov 2000 09:02:53 -0500 (EST)
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119458-2000.11.13-08.14.19--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 12 Nov 2000, Ray Vaughan wrote:

> >would like to know if anyone has been successful in writing code for the
> >PIC-E to convert the Davis code into something that can be outputted to
> >a TNC for APRS use.

> ... won't work. Here's why: The PICe circuit needs some source of
> time....

Only the "positionless" WX format needs time. The "complete WX
format" does not include time and is assigned on receipt. So PIC WX
stations should be easy to do...

de WB4APR, Bob

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

19. [picsig] RE: picsig digest: November 12, 2000

From: tarnerich@in-situ.com (Tony Arnerich)
Date: Mon, 13 Nov 2000 09:35:27 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119493-2000.11.13-10.47.50--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Byon wrote:

Subject: Re: Information
From: "Byon Garrabrant" <byon@mail.com>
Date: Sun, 12 Nov 2000 20:29:46 -0800
X-Message-Number: 3

On 12 Nov 00, at 23:11, Ray Vaughan wrote:

> At 10:24 PM 11/12/00 -0500, you wrote:
> >Second project involves the Davis wx station that has the data logger. I
> >would like to know if anyone has been successful in writing code for the
> >PIC-E to convert the Davis code into something that can be outputted to a
> >TNC for APRS use. I know that a dual port PC can do it but for
> >reliability's sake I don't want a PC involved
>
> From the VERY little I know about the PIC-e, the Davis won't work.
> Here's why: The PICe circuit needs some source of time.   It gets this
> from a GPS or certain weather stations by looking at the time of day
> that's included in the packets coming in.   Transmit every 5 minutes?
> When the time now equals last transmit time +5, transmit.   When there's
> no source of time, there's no way to time anything.

Actually, the PIC-E can do a pretty good job of timing. In fact, in
both John Hansen's and my MIC-E code, neither one of us even
used the time provided from the GPS.

In my opinion, it should be very doable to make the PIC-E receive
the Davis code and transmit it for APRS without even using a TNC.

Byon

_____
 Byon Garrabrant   N6BG   byon@mail.com

END OF DIGEST

You are currently subscribed to picsig as: kd7ta@arrl.net
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

20. [picsig] RE: information

From: tarnerich@in-situ.com (Tony Arnerich)
Date: Mon, 13 Nov 2000 09:53:08 -0700
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119497-2000.11.13-11.05.37--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Sorry about that last null entry, I bopped a mouse key by mistake before I
added my response. One more time:

> >Second project involves the Davis wx station that has the data logger. I
> >would like to know if anyone has been successful in writing code for the
> >PIC-E to convert the Davis code into something that can be outputted to a
> >TNC for APRS use.
[snip]
>In my opinion, it should be very doable to make the PIC-E receive
>the Davis code and transmit it for APRS without even using a TNC.

When I brought up the subject on the main APRSSIG about 2 weeks ago the
consensus was that it would be easy *if* anybody understood the proprietary
encoding that Davis uses. That's the way they force one to buy their $150
translation box to convert the info to ASCII. So, 3 paths that I can see
(others might have better ideas) are:

- Pay the $150 on top of what was spent on the Davis WX box, & have a PC or a
PIC do the APRS formatting and move the data to a TNC;
- somebody spend a bunch of time with known inputs trying to tease apart the
encoding scheme, & have the PIC decode the Davis stream into an APRS format
then send it out to a TNC;
- bypass the Davis display/logger box entirely, just have a PIC read the
Davis sensors directly and do the APRS formatting & send to a TNC.

Option 1 is great if you have too much time and money on hand, especially if
the WX station is remote.

73,
Tony KD7TA

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

21. [picsig] RE: information

From: David VanHorn <dvanhorn@cedar.net>
Date: Mon, 13 Nov 2000 12:09:25 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119500-2000.11.13-11.20.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>- Pay the $150 on top of what was spent on the Davis WX box, & have a PC
or a
>PIC do the APRS formatting and move the data to a TNC;

Just been there, done that.
WinAPRS does take the output of the magic brick, and it works well, once
you get it working. :)

The input to the magic brick is clocked serial data, TTL presumably.

Unfortunately, I think we'll have to have a major debug session, or a doc
from Davis, before we can get in at that level.

Clocked serial is better for micros though, just int on the clock line, and
read the data when clock bangs.

--
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

22. [picsig] Re: picsig index: November 12, 2000

From: Lyle L Long <n1ll@juno.com>
Date: Mon, 13 Nov 2000 13:27:55 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-119514-2000.11.13-12.43.57--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

get picsig 53340-53346

_____
YOU'RE PAYING TOO MUCH FOR THE INTERNET!
Juno now offers FREE Internet Access!
Try it today - there's no risk! For your FREE software, visit:
http://dl.www.juno.com/get/tagj.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

23. [picsig] Re: picsig index: November 12, 2000

From: John Mc Hugh <johnk.mchugh@worldnet.att.net>
Date: Mon, 13 Nov 2000 16:02:32 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119543-2000.11.13-15.22.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Lyle L Long wrote:

> get picsig 53340-53346

Lyle, what do this mean, I did a search of the archives for Peet and Davis
and drew a blank

John

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

24. [picsig] Re: Information

From: "Brian B. Riley" <brianbr@macconnect.com>
Date: Mon, 13 Nov 2000 16:27:52 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119552-2000.11.13-15.38.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Byon Garrabrant
> Sent: Sunday, November 12, 2000 23:30 PM
>

  [snip]

> Actually, the PIC-E can do a pretty good job of timing. In fact, in
> both John Hansen's and my MIC-E code, neither one of us even
> used the time provided from the GPS.
>
> In my opinion, it should be very doable to make the PIC-E receive
> the Davis code and transmit it for APRS without even using a TNC.

I have found that the TAPR T-238/Dallas One-Wire Weather combo (using
Motorola chip) which has manual time setting or use a DS1994 RTC for
clock initialization also keeps very good time ...

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

25. [picsig] Re: Information

From: John Mc Hugh <johnk.mchugh@worldnet.att.net>
Date: Tue, 14 Nov 2000 20:57:47 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-119753-2000.11.14-20.08.27--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Byon,

How are you doing with the WxTrak, just thought I'd check.

Byon Garrabrant wrote:

> In my opinion, it should be very doable to make the PIC-E receive
> the Davis code and transmit it for APRS without even using a TNC.

The same for the Peet?

John
--
John Mc Hugh, KU4GY
Coordinator for Amateur Radio
National Hurricane Center, W4EHW
Miami, Florida
Home Page: http://www.fiu.edu/orgs/w4ehw/

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

26. [picsig] PIC-E and weather

From: Ernie Howard <ag8y@voyager.net>
Date: Sat, 18 Nov 2000 23:14:22 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-120350-2000.11.18-22.25.53--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I know a question was asked earlier about Peet WX stations and using
the PIC. I notice that there is software on the tapr.org web site in
the PIC area that deals weather. (u2k.zip)

Does anybody here have any insight or experience with this program? It
looks like it will work with the pic-e and report the parsed data at a
programmed interval.

I have a friend who wants to run his U2K with a weather picture (in
complete record mode) and place it on APRS with a PIC-E. I have a pic-e
to test with but if I can get some initial guidance, it will help.

I notice that Steve mentioned in one of the files that it is an early
release. Anybody updated any of this?

73 Ernie W8EH

--

Without the second amendment, there would be no first.

Ernie Howard, Jr   W8EH   Middletown, Ohio
Internet E-mail: w8eh@arrl.net
Web Page: http://my.ohio.voyager.net/~w8eh

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

27. [picsig] get picsig 53753

From: Lyle L Long <n1ll@juno.com>
Date: Mon, 20 Nov 2000 08:25:52 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Cc: picsig@lists.tapr.org
Message-ID: <LYR6890-120507-2000.11.20-07.52.02--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

_____
GET INTERNET ACCESS FROM JUNO!
Juno offers FREE or PREMIUM Internet access for less!
Join Juno today! For your FREE software, visit:
http://dl.www.juno.com/get/tagj.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

December 2000

Original source file: picsig.0012
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/picsig/mail_archive/picsig.0012

1. [picsig] pic-e and weather stations

From: "Richard Carter" <rich.carter@windriver.com>
Date: Wed, 6 Dec 2000 10:23:50 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-123162-2000.12.06-09.31.24--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I bought a pic-e kit. I've just started investigating firmware options. I
suspect that my needs will not be met by available firmware.

I plan to setup a beacon with a weather station using a Davis weather
station. I'd like firmware that receives weather data, and transmits it at
a programmable interval. I'd also like the pic to filter received packets,
and copy packets addressed to me out the serial port for logging by an
external device. I plan to connect an unused PDA to the serial port for use
as a logging device. One serial port could serve for both logging and data
input. Of course, it should function as a beacon in other respects.

I'd also like the firmware to accept NMEA GPS data for mobile use. Since
the unit would not be used as both a fixed weather station and mobile unit
at the same time, it seems natural that this mode would be selectable.

Finally, I'd like the firmware to accept both weather data and GPS data from
the NMEA data stream. I have integrated instruments on my boat that provide
data in this format.

I'm not sure that the 16F84 has enough horse-power to meet my needs. The
16F627 is a pin-compatible replacement with more memory.

Any thoughts or ideas on the above are welcome.

Richard Carter - KE1EV

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

2. [picsig] MX-614 Query???

From: John Morley <jmorley@endeavour-usa.com>
Date: Mon, 11 Dec 2000 21:57:09 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-124132-2000.12.11-21.09.09--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

To the designers of the PIC-E,

I was wondering why the PIC-E does not make use of the TX "retiming"
feature of the MX-614 IC. This feature allows the MX-614 to
generate the precise timing necessary to produce 1200 baud data
transmission, freeing the host uC from this responsibility. The only
reason I can see that it would not be used is the extra 2 I/O pin overhead.
Unless, of course, there is something I'm missing here???

Best Regards,

John KA1JMF

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

3. [picsig] Re: MX-614 Query???

From: David VanHorn <dvanhorn@cedar.net>
Date: Tue, 12 Dec 2000 01:16:21 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-124179-2000.12.12-00.31.06--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 09:57 PM 12/11/00 -0500, you wrote:
>To the designers of the PIC-E,
>

>I was wondering why the PIC-E does not make use of the TX "retiming"
>feature of the MX-614 IC.

Can't.
It assumes async data.

--
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

4. [picsig] Re: MX-614 Query???

From: Jeff King <jeff@aerodata.net>
Date: Tue, 12 Dec 2000 01:40:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-124183-2000.12.12-00.53.31--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

David VanHorn wrote:
>
> At 09:57 PM 12/11/00 -0500, you wrote:
> >To the designers of the PIC-E,
> >
> >I was wondering why the PIC-E does not make use of the TX "retiming"
> >feature of the MX-614 IC.
>
> Can't.
> It assumes async data.

Your thinking of recieve. It will work on TX. See these messages:

http://www.tapr.org/tapr/list-archive/picsig/9903/msg00150.html
http://www.tapr.org/tapr/list-archive/picsig/9903/msg00152.html

And in fact someone already incorporated it:

http://www.tapr.org/tapr/list-archive/picsig/9907/msg00051.html
http://www.jarviscomputer.com/1k2telem/

73

Jeff

Date: Mon, 26 Jul 1999 22:06:29 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
From: James Jefferson <jjeffers@deskmedia.com>
Subject: [picsig] TX Retimming

Hello everyone,

I implemented the TX bit retimmming this evening. It is really easy to do,
and should fix any timming problems. This code should fit into John's DCC
paper skeleton okay. You will need to set the CLK line to low initally.

If you want to try this on your PIC-E board, then I would suggest using RB6
and RB7 for RDY and CLK.

Have fun and 73's,

-James Jefferson KB0THN
jjeffers@deskmedia.com
http://www.deskmedia.com/~jjeffers/

```
void delay_modem(void)  /* Uses the MX614 data retiming */
{
do { } while (0 != input(MX_RDY)); /* Wait for RDY to go low */
}

void setout(bit i)      /* 1 to leave output the same, 0 to flip */
{
```

```
stuff = 0;
if (i == bit_test(port_b,3))            /* pin_b3 */
        {
        output_high(TX_DATA);
        output_high(MX_CLK);
        delay_us(2);
        output_low(MX_CLK);
        } else {
        output_low(TX_DATA);
        output_high(MX_CLK);
        delay_us(2);
        output_low(MX_CLK);
        }
}

---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

5. [picsig] Re: picsig digest: December 11, 2000

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Tue, 12 Dec 2000 08:10:47 -0600
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-124215-2000.12.12-08.23.12--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John, take a look at the archives. Some time ago (1+ years?) I posted
code and instructions on how to use TX Retimming. It works just fine.

73's,
-James Jefferson KB0THN

> TAPR PIC Development Special Interest Group Digest for Monday, December 11, 2000.
>
> 1. MX-614 Query???
>
> --
>
> Subject: MX-614 Query???
> From: John Morley <jmorley@endeavour-usa.com>
> Date: Mon, 11 Dec 2000 21:57:09 -0500
> X-Message-Number: 1
>
> To the designers of the PIC-E,
>
> I was wondering why the PIC-E does not make use of the TX "retiming"
> feature of the MX-614 IC. This feature allows the MX-614 to
> generate the precise timing necessary to produce 1200 baud data
> transmission, freeing the host uC from this responsibility. The only
> reason I can see that it would not be used is the extra 2 I/O pin overhead.
> Unless, of course, there is something I'm missing here???
>
> Best Regards,
>
> John KA1JMF
>
>
>
>
> ---
>
> END OF DIGEST
>
> ---
> You are currently subscribed to picsig as: jjeffers@deskmedia.com
> To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
>
>

```
---
You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org
```

6. [picsig] RE: TX Retimming

From: tarnerich@in-situ.com (Tony Arnerich)
Date: Wed, 13 Dec 2000 09:40:30 -0700

To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-124398-2000.12.13-10.55.10--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

James Jefferson <jjeffers@deskmedia.com>

>I implemented the TX bit retimmming this evening. It is really easy to do,
>and should fix any timming problems. This code should fit into John's DCC
>paper skeleton okay. You will need to set the CLK line to low initally.

What's a "paper skeleton"?

73,
Tony KD7TA

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

7. [picsig] RE: TX Retimming

From: Jeff King <jeff@aerodata.net>
Date: Wed, 13 Dec 2000 21:23:23 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-124453-2000.12.13-20.30.38--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Tony Arnerich wrote:
>
> James Jefferson <jjeffers@deskmedia.com>
>
> >I implemented the TX bit retimmming this evening. It is really easy to do,
> >and should fix any timming problems. This code should fit into John's DCC
> >paper skeleton okay. You will need to set the CLK line to low initally.
>
> What's a "paper skeleton"?

I believe he was referring to the 1999 DCC paper John Hansen authored that
listed C subroutines for generating AX.25 frames.

-Jeff

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

8. [picsig] help with PIC-E and U2000 weather station.

From: "John Szkudlarek, KA8FGE" <ka8fge@dnaco.net>
Date: Sun, 24 Dec 2000 17:13:15 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-126140-2000.12.24-16.21.42--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

hello,
do i need to use the program "wx-e.asm" in loading it onto
my PIC-E? or does
all the programs in that group (such as: as25, bcd,
mx614...) need to be loaded?
if they all need to be loaded onto the chip how is that
done?

i assume i must assemble all these programs first or are the
hex versions on the PIC-E disk?

i want to figure out everything i need to do first before i
drive 30 miles out to the site to experiment with the
weather station in 10 degree temperatures. thanks,
73, John.

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org

9. [picsig] Re: help with PIC-E and U2000 weather station.

From: Steve Dimse <sdimse@telocity.com>
Date: Sun, 24 Dec 2000 17:26:55 -0500
To: "TAPR PIC Development Special Interest Group" <picsig@lists.tapr.org>
Message-ID: <LYR6890-126145-2000.12.24-16.41.59--lyris.picsig#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 12/24/00 5:13 PM John Szkudlarek, KA8FGE (ka8fge@dnaco.net) wrote:

>do i need to use the program "wx-e.asm" in loading it onto
>my PIC-E? or does
>all the programs in that group (such as: as25, bcd,
>mx614...) need to be loaded?

wx-e is stand-alone, it includes the modem code.

>i assume i must assemble all these programs first or are the
>hex versions on the PIC-E disk?
>
Both source and object are on the disk.

One important thing, you must have the U2k in complete record format for
this to work, check the U2k manual for the keypress sequence to do it, I
don't recal offhand.

Steve K4HG

You are currently subscribed to picsig as: lyris.picsig@tapr.org
To unsubscribe send a blank email to leave-picsig-6890E@lists.tapr.org